

treatment; interior cabinetry and millwork; built-in exterior and interior ornamentation; and other architectural components

Schedules Tabular schedules showing the type, size, location, quantity, and other key attributes of doors and windows; rough and finish hardware (e.g., locksets and hinges for doors); interior materials and finishes for walls, ceilings, and floors; appliances; light fixtures; plumbing fixtures; and miscellaneous specialty items

Architectural drawings in a full set of construction documents are complemented by drawings prepared by engineers showing the complete design of all site work; complete design of a building's structural, mechanical, plumbing, and electrical systems; and complete design of all other specialized systems within the building. Using the digital model of the project, architects must constantly check their own work as well as that of others to ascertain that all building components are shown, correctly specified, and dimensioned consistently. This ensures that no essential item is omitted and that components will fit together at the construction site as they appear to fit together in the digital model. Use by all parties of a single digital model and common design database—BIM—have made coordination easier and more reliable.

Working drawings are typically covered with notes that are an integral part of building design drawings, explaining and specifying what cannot be shown graphically. They identify components and materials or instruct contractors to perform specific work in accordance with the notation or with a referenced construction standard. For example, one note might identify a material as *concrete*, whereas another might stipulate how each batch of concrete is to be tested before placement. Often such notes are contained in specifications written and printed separately from the drawings.

The need to write titles and notes on drawings drafted by hand once motivated architects to master the art of manual lettering. Perfected by hours of practice drawing lettering guidelines and struggling to make a well-shaped *S*, *B*, *R*, or *M*, the hand printing of an architect is often recognizable. But the need for this skill has disappeared because architects now type drawing titles and notes on computer keyboards.

Firms tend to optimize productivity by employing people who work fast and effectively in at least one area of activity. Because the greatest percentage of a firm's staff time and labor goes into production of complex digital building models and construction documents, firms prefer to hire architects who have CAD mastery and also are knowledgeable about construction. One or two senior design partners, responsible for generating fundamental design concepts, can keep scores of junior partners, associates, and staff architects busy at workstations in front of computer screens. Therefore, young architects hired by any but the smallest architectural firms are likely to work less on conceptual design and more on design development and construction documents. Although it is essential to spend several years early in your career learning the art and craft of detailed design for construction, it may not be your life's ambition.

However, sometimes young architects with exceptional design and graphic talent are hired expressly to be conceptual designers. Concentrating on schematic design and design development phases of project work, they may have little opportunity to learn how to produce technically detailed construction drawings and specifications. If an intern has the ability to make beautiful sketches and presentation drawings, firms are tempted to keep the intern doing what he or she does best. Still other young architects discover that they have personal skills and inclinations that make them practical "field" types, enabling them to be very

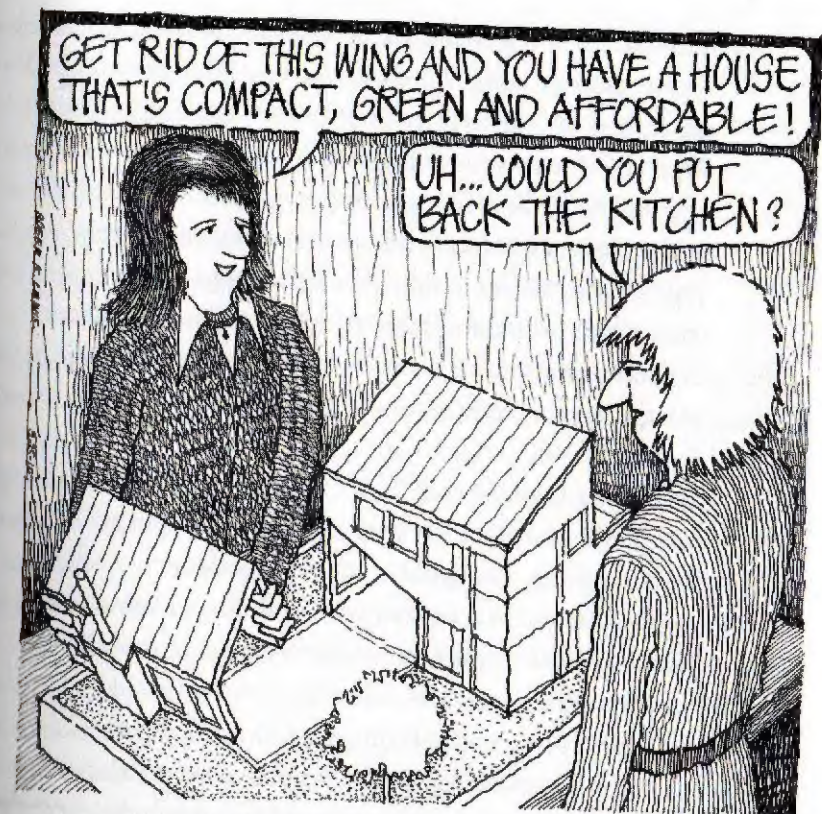
effective in handling construction contractors and job-site problems. Such architects may rarely produce drawings.

Physical Models Built Manually or Digitally

Few competent architects design a project of any size or consequence without using scale models, especially physical models for studying a design during schematic and design development phases. Physical models greatly help an architect visualize a form and make design choices. Such models also greatly help clients, some of whom have difficulty interpreting drawings, visualize and understand a design. As architecture students know, making analog models is very time and labor intensive, depending on the complexity of the project and size of the model. Anyone who enjoys using his or her hands, who derives pleasure from crafting something carefully and beautifully, will be a good physical model maker. No matter how fast or careful, model builders must have patience, steady eyes and hands, a concern for edges and joints, strong glue, and a sharp knife.

Sophisticated, computer-controlled machines have made physical model making significantly easier and less time-consuming. Once a design is delineated digitally, these robotic machines can analyze and produce relatively complex models. Laser-cutters and 3-D printers create thin slices of material, layer by layer, which are then laminated together to produce an intricate form. Milling machines can cut into and carve solid blocks of materials to shape disparate elements of a larger model, subsequently assembled using the separately milled elements.

Some firms have their own model shop and use young, in-house architects or professional model makers to construct physical models for study purposes and for public presentation. But many architecture firms contract with specialized model-making



companies that are in the business of producing large-scale models for architects, in particular detailed presentation models. Such models, typically showing a project's final design, are usually beautifully crafted and finished, often with extensive detail and internal lighting. Some models can be partially disassembled or have removable sections allowing views of the model's interior.

Architects also build virtual models digitally that eliminate the need for manual craftsmanship. Building a computer model can take less time than crafting a real, three-dimensional model, although a digital model displayed two-dimensionally on a screen can never match the tactile qualities of a physical model

constructed of real materials. Nevertheless, computer models are extraordinarily useful. Sophisticated modeling programs allow generation of unlimited, mathematically correct perspective views from any viewpoint. By assigning specific attributes to each element and visible surface of a digital model, unlimited combinations of colors, patterns, textures, and materials, including glass, can be represented, thereby yielding realistic images of the design. Designs can be studied under diverse exterior daylight conditions depending on sun position, time of day, and season of the year. Electric lighting options can be tested to see the effects of various lighting strategies. Lighting visualization programs also show reflections, shading, and shadows. Finally, using photographs, the architect can show and manipulate the actual project context, its "entourage," in the digital model. The designer can place the project in its real or in an imagined setting, adding or subtracting other buildings, landscaping, people, furniture, or automobiles.

Thanks to huge CAD memory capacity and ultra-high-speed computer processors, designers can animate digital models and create videos that simulate the experience of walking around, flying through, or flying over a project and its surroundings. You can visit the project on foot, in a wheelchair, on a bicycle, in a car, or in a plane flying overhead, traveling along any path and at any speed. Audio can be added. Zooming functions allow you to move close in or far away as perspectives change. And you can travel digitally not only through or over single buildings but also complexes of buildings, natural and constructed landscapes, neighborhoods, towns, or cities.

Writing

As you can see from the chart, a number of functions in architectural practice entail little or no drawing. However, virtually

all functions require some writing, reading, and talking—basic verbal skills critical to practicing architecture. To the surprise of many graduate architects newly employed in architectural offices, much time is spent writing countless e-mails, memoranda, and letters to clients, engineers, product manufacturers, and government agencies. Architects write notes on sketches about their design ideas and specifications to accompany construction drawings. Architects with management responsibility write proposals, contracts, certifications, promotional documents, and reference letters. And firms sometimes prepare and issue lengthy reports.

Specifications can be the bulkiest written output of an architectural practice. To beginning architects, a set of construction specifications can appear intimidating, not only because of their quantity but also because of the esoteric nature of many of the items called for. Much of the jargon and legalese in specifications is probably unnecessary, and certainly much of it is standardized boilerplate language that could be incorporated by reference to widely accepted standards of construction practice. In fact, most sets of specifications are merely rewrites of previously used sets, edited to fit the project at hand. Most firms use and edit standardized, proprietary specifications such as MasterSpec, which greatly facilitates specification preparation.

Specifications designate all the materials, equipment, furnishings, and other products to be incorporated in a building, identifying their type, manufacturer, size, and performance characteristics. For example, specs describe the type of lumber or steel to be used in framing the structure of a building, the type of concrete for foundations, or the type of brick for exterior walls. Architects write specifications that relate to primary building trades and product categories, such as masonry, metals, glass, carpentry,

and finishes. Engineers prepare specs related to structural and mechanical systems.

For each project, the architects responsible for writing specifications must delete inapplicable or obsolete specification items from the reference set, modify undeleted items to conform to the new design, and add new specification items not already contained in the reference set that are necessary for the new design. One of the challenges in preparing specifications is knowing how much detail to include because specifying too much or too little can get architects into trouble. Too much can drive costs up needlessly; too little can compromise quality or create ambiguities and disputes. Only experience writing specifications and administering construction can give you the knowledge needed for meeting this challenge.

Architectural liability for professional negligence arises mostly when projects are built but it also can result from misunderstandings during design. Therefore litigation-conscious architects create written or digital "paper trails" documenting a project's history of communication and decision-making. Documentation includes minutes of meetings, telephone notes, e-mails, and memos confirming verbal agreements and approvals and letters of transmittal, among others. Thorough documenters are hard to find because most practicing architects would rather draw and design than write. Thus, reasonably articulate, meticulous, slightly compulsive writers are invaluable.

A thorough paper trail can protect and exculpate the architect when things go wrong. All correspondence, field reports, RFI responses, change orders, and payment certifications must always be written with an eye on the potential for litigation. Obviously it is in the architect's interest to cast favorable light on his or her actions and never to admit making an error, either verbally or in writing. Again, similar to writing specifications, creating a proper paper trail is a matter of knowing what to include and what to exclude.

In many ways the most challenging and critical writing tasks for practicing architects relate not to project documentation but rather to marketing, client contact, and public relations. Principals of firms must spend substantial amounts of time writing prose—for proposals, websites, and portfolios showing their work or for explaining and justifying their design philosophy. Unlike much technical writing, such prose must be pithy but sometimes discursive and always rhetorically fine-tuned. Writing text for proposals is especially important; even the wording of a simple but crucial phrase can either persuade or dissuade a prospective client.

Reading and Researching

Architects read a lot of incoming e-mail, web pages, blogs, hard-copy memos, magazines, and professional journals, similar to everyone else in business. They also read and analyze contracts, research reports, reference books, zoning and building codes, product catalogs, and specifications, often online. And they must read fairly carefully, with total comprehension. Failing to do so can lead to legal, financial, and professional missteps. Moreover, architects read regularly as part of their continuing self-education and sometimes to earn continuing education credits. Most want to know what is happening in the profession, to keep abreast of new projects, new ideas, new trends, new laws and regulations, and new construction products. And to be informed and active citizens of their community, they must pay attention to local news media, not only to follow current events but also to learn about prospective project opportunities in their own community.

Meeting and Talking

Meeting and talking mean engaging in substantive verbal communication of ideas and information. Just as you may be

astounded by the time demands of writing, you also may be surprised by the number of hours devoted to meeting and talking with coworkers, clients, consultants, public agency officials, committees and boards, manufacturers' representatives, attorneys, accountants, insurance agents, and bankers. Meetings abound in architectural practice. There are days when an architect may feel that architectural practice should be renamed architectural prattle.

The most critical meeting and talking occur when architects are selling their services, trying to develop business contacts and secure commissions, and then later when selling their design concepts to clients or review agencies. This entails persuasion and negotiation. The ability to convince others of your knowledge, talent, credibility, and even lovability is indispensable. Indeed, the importance of public speaking skills for architects cannot be exaggerated because architects must often stand up and talk convincingly in front of a group of strangers. Some of the world's most successful architects, despite diverse speaking styles, are masters of the rostrum. They can be empathetic and charismatic, articulate and even poetic. With spoken words and body language, they connect personally with their audience, discomfort or stage fright notwithstanding.

The art of speaking is also useful for dealing with contractors, many of them tough negotiators who think nothing of verbally assaulting reticent, taciturn architects. Architects spend lots of time in conversation on job sites with construction project managers, superintendents, and subcontract trade foremen haggling over prices, the intent and interpretation of drawings and specifications, scheduling, cost extras and overruns, and, above all, the quality and craftsmanship of construction work designed by the architect. In these situations, architects are most effective when they are tactful yet authoritative, without being pompous or condescending.

Calculating

Calculating refers to the many different types of accounting and mathematical operations that architects perform in practice. Accounting activity in the management of a firm's finances involves keeping track of work completed and worker hours consumed, invoicing clients and collecting fees, paying salaries and other expenses, and maintaining a sufficient supply of working capital to cover the gap between income and expenditures because the latter often outpaces the former. This effort requires diligent record keeping and timely, usually monthly, updating of payables—what the firm owes—and receivables—what is owed the firm.

Another kind of calculating cited in the chart relates to the many quantitative aspects of project design: preliminary estimates of construction costs; construction bids; square footages and dimensions of programmed spaces and areas in buildings; zoning, site, and building code parameters—area, yard and setback dimensions, building sizes and heights, occupancy, and fire egress; quantities, sizes, and costs of components specified; building dimensions; identifying and analyzing points earned for LEED certification; and, in engineering design, types and magnitudes of loads imposed on engineered systems—structural loads, heating and air-conditioning loads, ventilation requirements, water and sewer demand, electrical loads, excavation quantities for cut and fill. Although consulting engineers undertake much of the detailed computational analyses required, the architect must still understand what engineers are doing. In simple construction, such as individual residences, architects often do their own structural design accounting using reference tables and simple formulas.

Architects prepare only very rough construction cost estimates, approximations with varying degrees of reliability. During the

design of large, cost-sensitive projects, they and their clients often rely on independent cost estimators. On the one hand, clients expect architects to be knowledgeable about building costs, to be able to predict with some accuracy how much a project will cost to construct, excluding the costs of land, financing, fees, and furnishings. On the other hand, most general contractors know that a project's cost can never be pinpointed accurately until construction documents are completed, and they are usually skeptical about cost estimates done by architects.

Contractors' bids are based on detailed study of construction documents. Estimators compute the exact quantity and cost of labor and materials required for each and every item needed to construct the project as designed. But even before design begins, how can architects and their clients estimate construction costs? They use comparables. If the project being designed can be compared with similar projects for which costs are known, then a somewhat realistic estimate can be generated. To ensure comparability, the architect must consider the geographic location, size, complexity, quality, type, and time of construction of comparable projects. Escalation allowances must be made for inflation if data are not recent. Most comparable cost data are expressed in dollars per square foot of enclosed building floor area, although cost figures may also be stated for other units of size, such as volume (cubic feet), number of beds, or number of parking spaces. Such estimates, no matter how carefully made, are always intelligent guesses. Two different project designs and sites are never wholly comparable and there are always enough special conditions to introduce large margins of error.

Architects' optimism contributes additionally to errors in preliminary estimating because architects are notorious for underestimating the ultimate costs of their designs. This accounts

in part for their reluctance to guarantee an absolute construction cost in their agreement with clients. If they did, they often would be obligated to redesign and redraw their projects, perhaps going bankrupt in the process. Prudent architects do their best to predict construction costs conservatively, hoping to look good when bids match or fall below their estimates. At the same time prudent clients should always add a healthy contingency to architects' estimates, no matter how conservative. It has been said that an architect is not trying hard enough if project bids come in under budget.

Client Contact

Client contact is among the most critical activities in architectural practice. When the design team meets periodically with the client to discuss design ideas and review progress, vital decisions about design are made. This is when new ideas as well as conflicts may emerge, when basic formal or technical strategies are adopted, when the realities of budgets and schedules must be confronted. Indeed, face-to-face interaction between architects and clients can disclose the differing agendas of each party as well as offer the opportunity to reconcile those agendas.

Intern architects in large firms frequently complain that they never get to meet or work directly with the firm's clients. They may be too junior in the hierarchy to attend client meetings, perhaps already overcrowded by the presence of a senior partner, a design partner, a project manager, and a job captain. A boss may perceive an employee to be unrepresentable because of how the employee speaks or dresses. A few clients prefer to meet with only the nominal head of the firm, notwithstanding the sometimes minimal role played by that principal in carrying out the project. Or there may be intraoffice jealousies, rivalries, and resentments between

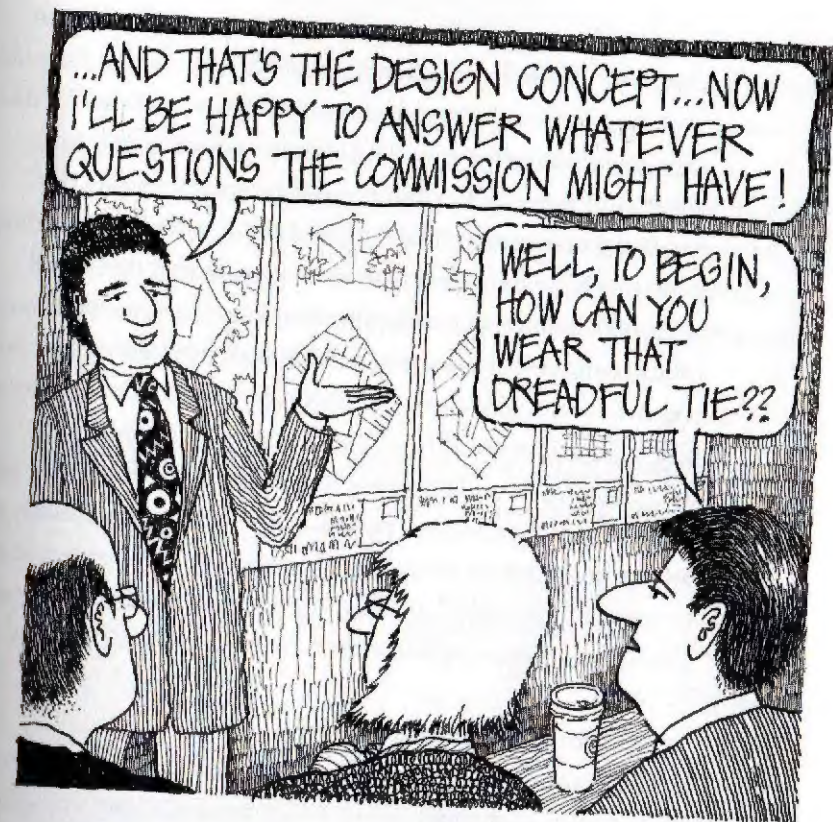
individuals. One architect may feel threatened or intimidated by another, perhaps because of differences in skills, talents, or personality.

But in almost all small and most medium-size offices, senior and junior architects interact routinely with clients, in part because younger architects may take on a greater share of project design responsibility. This is, in fact, one of the distinct advantages of working for smaller firms. No matter what their size, responsible firms ensure that intern architects have the opportunity to meet with clients, to understand the client's point of view, and to appreciate better the complex forces affecting design.

Government Reviews and Approvals

Another notable subroutine in the day-to-day life of the practicing architect is interacting with government agencies that have jurisdiction over projects. Architects spend considerable time not only researching and interpreting laws and regulations applicable to each project but also persuading local building code and zoning enforcement officials, zoning appeals boards, design review panels, or planning commissions that a proposed design is lawful, conforms to all regulations, and is in the public interest. To accomplish this, architects periodically submit design drawings for review as a design develops, then meet at appropriate times with government agency officials to ascertain compliance. For projects requiring zoning changes, exceptions, or special permits, public hearings are typically required. The architect, client, and often the client's attorney appear at such hearings to explain and justify the project. Thus the government review and approval process can be very time-consuming and costly.

Before schematic design progresses too far, wise architects analyze relevant ordinances to identify key requirements and standards applicable to the project. Yet that is never sufficient to



ensure total compliance, which is why some architects cultivate acquaintanceship with agency officials who can help unravel regulatory mysteries or resolve conflicting interpretations of poorly drafted ordinances. Also many architectural firms retain independent building code and life-safety consultants to help guide design and assist in obtaining approvals. These experts generally know ordinances and regulations backward and forward. Regardless of who presents and explains a project design, not all officials—some feeling overworked and underpaid—are cooperative. Remember that many review officials feel obliged to find something wrong, lest their jobs or purpose be challenged.

Fortunately, there are always officials in every jurisdictional bureaucracy who believe that their mission is to serve the public, including architects. Nevertheless, in all cases, successfully dealing with government agencies demands keen negotiating skills, sensitive diplomacy, flexibility, and firmness.

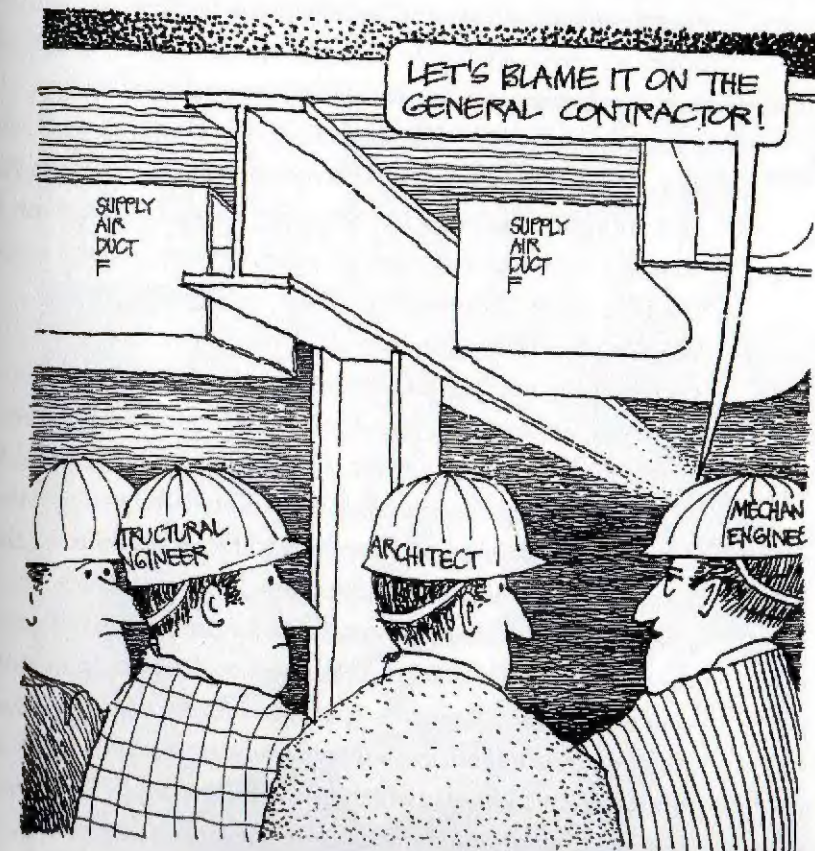
Relief comes with final approvals and issuance of building permits. Conversely, the architect may learn that despite all attempts to conform to codes while conferring repeatedly with officials, the permit has been denied or delayed because of failure to comply 100 percent with regulations or worse because criteria or official interpretations have changed since last checked. If discrepancies or omissions are minor, the architect may be able to make a quick trip to the permit office to manually modify the permit drawings on the spot. Otherwise, the architect must further revise the design and hope that such revisions do not adversely affect the project schedule or construction budget.

Consultants and Coordination

Collaboration, not confrontation, is the way architects can and should work with engineering and other consultants. Ideally engineering consultants should join the project design team soon after the architect's work starts. Once schematic design is underway, engineers can begin studying the architect's design concepts and formulate appropriate engineering strategies, advising the architect accordingly. As design development moves forward, preliminary engineering drawings are started. During the construction documents phase, all architectural and engineering drawings and specifications must be prepared and, most critically, coordinated. The coordination process is crucial because the work of each participant affects the work of all others.

Usually the project architect or job captain is responsible for overall coordination, which entails periodic progress meetings,

telephone conversations, and e-mail exchanges between architects and engineers. But coordination is greatly facilitated and enhanced by the ability of all members of the design team to share databases and transmit information instantly via the Internet and local area networks. BIM programs enable creation of and access to a digital model of a design embodying every component and system of a project. As the project design evolves, each addition, deletion, or modification of a system component is immediately incorporated and viewable in the model.



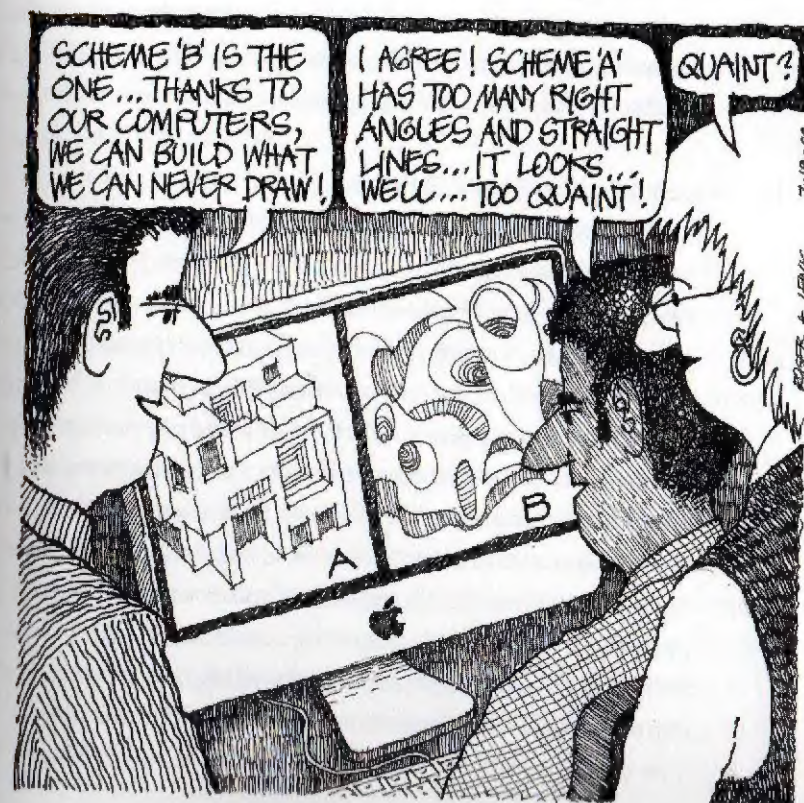
Despite digital technology, the coordination challenge is still daunting because no element appears in the model unless a designer adds it. Inside any building there are many places where elements of structure (such as beams or columns), ductwork, pipes, conduits (such as electrical and telephone), and walls all want to occupy roughly the same space at the same time, an obvious impossibility. And many elements are shown in more than one drawing. Design models and drawings are built up in layers. Thus, designers visualize, configure, and identify these elements, layer by layer, relying on BIM programs to insert and show them consistently in each layer of the digital model. If an omission or conflict between elements exists and slips through, it usually will be discovered only when the condition is encountered by the contractor in the field. The contractor may then stop work, alert everyone, request a solution, and mentally pocket the extra funds he is entitled to claim for the extra work caused by the error. In turn, the client may claim payment from the architect or engineer.

Working Digitally

Digital technology has all but eliminated manual drafting and traditional information management techniques in architectural offices. Networked computers, the Internet, local and cloud-based data and program storage, and sophisticated design and data management software allow architects instant access to all their business and project records, including drawings and correspondence; lengthy contact lists for clients, consultants, contractors, public officials, colleagues, and others; frequently used or standardized documents, specifications, details, and drawings; product information, including manufacturing and supply sources; construction cost data (which must be periodically updated); zoning standards and building codes; and general reference data

related to the physical and social sciences, geography, cities, historic architecture, and almost anything else that an architect might want to know.

Using digital technology, an architect can generate, study, and refine many more conceptual alternatives for a design than could ever have been contemplated or drawn when design was done manually. There is one risk, however, in designing only digitally. CAD programs and plotters produce schematic design drawings that nevertheless show precise shapes, sharply defined line work, and exact dimensions. Consequently, such drawings can graphically convey the impression that a design is much more developed and



crystallized than it actually is. Clients and others who look at the drawings can be misled into thinking that the design is nearly finalized, when in fact it is still conceptual and inchoate. Therefore architects must make sure that their digitally produced drawings communicate their design in ways that are graphically appropriate.

The computer, although invaluable, is still fundamentally a tool. Unable to think critically or generate creative ideas, it will never replace the brain of the architect. Human beings still must conduct research, visit sites, communicate with clients and colleagues, study and analyze information, coordinate the efforts of others, and, above all, engage in the demanding and exciting act of artful, imaginative design. Computers make it possible for us to design more effectively and more inventively. Yet with all the computer power imaginable, a mediocre architect is still likely to produce a mediocre work of architecture.

Construction Phase Services

Construction phase services and activities contrast sharply with all previous phases. During project construction, architects spend most of their time doing one of four things: (1) visiting the job site periodically to observe work in progress and attend on-site progress meetings with the contractor, owner, subcontractors, engineers, inspectors, and suppliers; (2) reviewing and approving shop drawings submitted by the contractor, subcontractors, and suppliers; (3) clarifying, correcting, or changing—through change orders—parts of the design shown in construction documents, including making final selections of colors or materials not previously specified; (4) preparing construction observation reports and certifications for payment and writing memoranda to the owner, contractor, government agencies, lenders, or file.

During frequently scheduled and sometimes unscheduled trips to the construction site much can happen. You may encounter mud or debris, necessitating ownership of at least one pair of high, waterproof boots. Insurance companies and Occupational Safety and Health Administration safety regulations require wearing a hard hat and Day-Glo vest, which many architects keep at the ready in their car. You can run the risk of exposure to rain, snow, ice, heat, cold, and projecting rusty nails. Disputes and shouting matches can arise before, during, or after job-site meetings. You may have the thankless task of telling the construction superintendent that work in place will have to be torn out and redone and at the contractor's expense. And at times you may experience the feeling of being a *persona non grata*. But perhaps the most memorable moment is feeling elation, and occasionally disappointment, when your design, previously realized only on paper, is seen in fully constructed form for the first time.

Many architects consider the second activity—reviewing and checking shop drawings—to be among the most boring and tedious of all the architect's construction phase tasks. A shop drawing is a detailed, dimensioned drawing prepared by the fabricator of a particular system or part of a building—such as steel reinforcing or structural members, cabinetry, special equipment installations, railings, curtain wall assemblies—and based on the architect's design drawings. The shop drawing, not the architect's drawing, is used to manufacture the components to be furnished and installed by the general contractor and subcontractor. Shop drawings are sent to the design architect and engineers because the fabricator, subcontractor, supplier, and general contractor all want to ensure that what is to be made complies with the architect's design intent and will fit into the building. If shop drawings do not comply, then the architect and engineers immediately alert the

contractor by identifying and explaining the deficiency and requesting resubmittal of corrected drawings. However, even after a shop drawing is approved, ensuring compliance with the design is still the fabricator's responsibility, not the designer's.

In large projects, there can be hundreds of shop drawings with thousands of dimensions and many opportunities for error. You can imagine what it might be like to process and scrutinize every one of these drawings. They are supposed to be submitted well in advance of fabrication and installation but sometimes they are not. Contractors often dump loads of shop drawings in the architect's lap over a short period of time, only to claim later that completion of construction was delayed because the architect and engineers were slow or late in reviewing the shop drawings. Ideally shop drawings should be submitted many weeks ahead of fabrication and installation to allow everyone enough time to review, correct, coordinate, fabricate correctly, and deliver.

All projects necessitate design clarifications and design changes during construction simply because it is impossible, even with digital technology, to produce a perfectly clear, flawless set of construction documents or to foresee all conditions. Contractors frequently send RFIs to architects when they encounter something ambiguous or unclear in drawings. Likewise scores of change orders may be needed. Some are associated with site work and unanticipated below-ground conditions but others result when an owner has a change of mind about some previously settled aspect of the design. Architects always hope that change order frequency, along with design change cost and schedule impact, will be minimal.

Completing construction of a project 100 percent, bringing it to its truly final conclusion, can be a complex end game played out

by the key participants. To complicate matters, there are two distinct completion points: substantial completion, when a building can be occupied and used but is not quite finished, and final completion, when absolutely everything is finished. Between substantial and final completion, actions converge. First, the architect thoroughly inspects the building, inside and out, and prepares a punch list for the contractor of still unfinished, missing, or improperly installed items. The contractor and subcontractors, having substantially completed the project, tend to lose interest and even demobilize as they begin to focus their attention on other projects starting up or under way elsewhere. Consequently, they often drag their feet in performing the last 2 or 3 percent of the work itemized on the punch list, items that can be aesthetically crucial to the quality of the building.

Meanwhile the financial end game is playing out. The owner still owes the contractor money, usually including a retainage—monies earned by the general contractor but held back—to ensure completion. The contractor may have pending claims for extras, hoping to collect more than the original contract sum while waiting for monies already due. Each may try to play hardball, the contractor refusing to finish the work, the owner refusing to release any more funds. And there may be other pending disputes. Under standard AIA agreements, the architect—the mediator between owner and contractor—must try to get both parties to reach agreement on what remains to be done, what is owed, and how funds finally will be disbursed. Timing is key because the goal is to move the project from substantial to final completion on schedule. Architects sometimes underestimate the amount of time that all of this can take. And similar to many other aspects of practice, closing out a project requires negotiating skills more than design skills.

Organization within Architectural Firms

An architectural firm may be composed of one, ten, or hundreds of architects. Large firms may also include engineers, landscape architects, interior designers, information technologists, cost estimators, and marketing and public relations specialists. But how are firms structured so that each member of the firm knows where he or she is in the hierarchy or pecking order?

Size of firm is a big factor in determining firm structure. A one person firm is simple to organize because one person plays all roles. When there are two or more people, however, things become more complex. Most firms are either sole proprietorships, owned entirely by a single individual, or partnerships of two or more partners. The number of partners is unlimited. Firm owners, whether sole proprietors or partners, are entitled to the firm's profits but they also assume responsibility for losses and liabilities. Owners set firm policy, make final decisions, hire and fire personnel, and enjoy other benefits of business ownership.

Many states allow architectural firms to be incorporated but the individual licensed architects who own the firm's stock and direct its affairs are still personally liable for professional negligence arising from the firm's work. Incorporation offers other benefits related to deferral of income for pensions and retirement as well as protection of personal assets from claims related to nonprofessional business liabilities. Otherwise corporations operate much like partnerships. In all forms of organization, the architects who own the firm must provide or obtain the financing necessary to start and sustain operations.

Most firms structure themselves internally in two ways: by rank or by function. Rank-structured firms are headed by one or several senior partners, typically the original founders of the firm. Below them are junior partners, who may play differing functional roles within the firm. Next come senior associates, experienced staff

members who help manage operations and may share in the firm's profits but who are not owners of the firm. Then comes the professional staff, usually the most numerous but also the youngest or newest members of the firm. In large offices they populate the studio spaces and do most of the production work. Some of them may be unlicensed interns, only a few years out of school. In smaller firms, such ranking is less noticed, although there are still employers and employees. Finally, there is the administrative staff, indispensable to any business organization of any size. They frequently are the only people in the office who know how much money is in the firm's bank account, how much the firm owes and is owed, who works for the firm and what they earn, and who is scheduled to meet with whom, when, and where.

Functionally structured architectural firms are organized into two broad areas of activity: firm operations and project operations. Firm operations such as business development, marketing and public relations, personnel management, and financial management are supervised by senior partners assisted by appropriate administrative staff members. These partners are primarily responsible for pursuing and obtaining the firm's project commissions and contracts, representing the firm to the outside world, and overseeing the general internal management of the firm.

Project operations are the activities generating the firm's revenue and majority of its expenses. Most firms use a project team approach. The team may vary in size with each phase of a project or one person may play more than one position on the team. A typical team structure consists of the following players:

Project principal-in-charge This is usually a senior partner who may have been instrumental in making contact with the client and bringing in the commission; acting primarily as a front person, he or she may spend little time producing the work itself.

Project designer or architect This is a partner or senior associate who takes primary responsibility for conceptual design of the project and is the lead author of the work; he or she may also be the partner in charge.

Job captain or project manager These are usually an experienced associate, who may also be the primary designer responsible for managing the day-to-day flow of work on the project, including coordination with consultants, maintaining project records and correspondence, and supervising production of digital models and drawings.

Architectural designers These are staff professionals who do most of the research and labor-intensive, digital production work associated with each phase of design, especially design development and construction documents phases; they meet with consultants and occasionally with clients, contractors, and government officials.

Technical specialists Large firms often have professional staff members who write project specifications, manage the firm's computer network, programs and data storage, and take responsibility for construction-phase services.

Project teams also may be created through departmentalization within larger offices. Thus there may be a design group, a production (contract documents) group, a specifications group, an interiors group, a landscape group, a cost-estimating group, and a construction administration group. Each group or department may be headed by a partner and senior associates responsible for management of their respective department's activities. This means that a manager could be supervising work on several projects at once. In A/E firms, the engineering departments may

also be large; such firms may have more engineers than architects and would be more correctly labeled E/A firms. Departmentalized firms may be very efficient in producing work because of specialization but barriers and competition may arise between departments. Most young architects prefer the team approach because working on a project team in a big firm can be like working in a small firm.

Diversified Services

Much of this book and this chapter focuses on architecture as the design of buildings, describing the design process and how architects participate in that process. But practicing architects and firms increasingly have expanded the services they offer and professional activities they pursue beyond designing buildings. This is not surprising given the multidisciplinary scope of architectural education in North America, the range of skills and interests many architects acquire, and the proliferation of environmental challenges posed by an ever-more complex society and physical landscape.

Therefore it is not unusual to find architects performing services that may seem marginally architectural yet clearly inhabit the realm of physical design: regional master planning, ranging in scale from entire states to counties to cities and towns; master planning and urban design for new communities, educational campuses, and other building complexes such as business parks; urban design for sectors or specific sites within cities, including revising or creating new zoning regulations and design codes; and, in collaboration with engineers and landscape architects, designing visible portions of public sector infrastructure—transportation facilities, roadways, parks, and power plants.

Some architectural firms actually do work on behalf of other architectural firms. One architect, who might have a small firm, can be the designer for a project for another firm and undertake only the schematic design and design development phases of work. A separate firm then prepares the project construction documents. The latter firm may become the “architect of record,” certify the drawings, administer the construction contract, and assume most of the professional liability. It is typically a large organization that specializes in such work.

Architects also serve as design consultants advising corporations, community and neighborhood associations, government agencies at all levels, school boards, historic preservation organizations, and cultural and other nonprofit groups. Persistent urban, suburban, and ecological problems will continue providing architects opportunities to confront and address these difficulties along with meeting architectural and construction challenges around the world. In recent decades, US architects have been among the first to step forward to help people, domestically and abroad, who have suffered the effects of natural disasters, war, famine, and grinding poverty. For example, architects designed housing and sometimes helped build temporary shelter in flood-ravaged New Orleans and in Haiti after an earthquake made hundreds of thousands homeless. The devastation along the eastern seaboard caused by Hurricane Sandy in 2012, especially in New Jersey and New York City, motivated architects to contribute to the rebuilding effort.

The Goals of Architectural Firms

To bring this chapter to a conclusion and lead you to the next, briefly consider the various goals firms pursue, either explicitly or implicitly. Explicit firm goals are routinely recited in promotional

materials and on websites, always promising great design done within budget, on schedule, efficiently, effectively, and for reasonable cost. Implicit goals are more telling and are evidenced by the kind and quality of work a firm does rather than by what it says it does. With this in mind we can generally categorize goals as follows:

- Pursuing design excellence and aesthetic innovation
- Optimizing services to meet client needs and expectations
- Serving the interests of the community and public, not just the client's
- Burnishing professional reputation and acquiring fame
- Maximizing business volume and firm profits

These goals are not mutually exclusive; a firm can pursue any or all of them. But most firms develop, pursue, and prioritize certain goals that determine their approach to practice and contribute to the firm's brand, image, and reputation. Thus newly graduated architects should be aware of the goals of firms where employment might be sought because such goals are easily embraced by impressionable interns.

One goal is universally shared by virtually all architects in practice: to be hired by a client for a new project. Achieving this goal is the subject of the next chapter.

10 How Architects Get Work

Architects concerned with business development periodically attend marketing seminars or workshops to learn more about market research, sniffing out new clients and new projects, and conducting public relations. Before the 1970s, however, marketing was rarely addressed or acknowledged explicitly by the architectural profession as a vital part of practice. In fact, previous generations of architects believed that overtly marketing services was unprofessional, a commercial activity associated with retail trade, the selling of products, and not for those who render professional services. Actively marketing services conjured up visions of paid advertising, self-promotion, exaggerated claims, unfair competitive practices, "specials," and "discounts." Yet architects have always been naturally competitive, realizing that if they just sat back, relaxed, and waited for new clients to call, they might very well starve.

In today's extremely competitive climate, pursuing work has become so time-consuming and critical an activity in architectural practice that anyone considering a career in architecture must at least be aware of marketing goals and methods, not all of which seem like marketing. We will examine the reasons clients select architects, how they select them, and what architects do to improve their chances of being selected.

Getting the First Job

The day you look for your first job in an architectural office is your first day of marketing: you are selling yourself and the services you can provide. From your perspective, the architectural firm is your client, and the best strategy is to make a favorable first impression. You want the firm to remember you rather than others

interviewed, to like your portfolio of work more than others, to be more impressed with your personal references, to feel more comfortable and confident about you in comparison with other job applicants. You want to look good and you want your "client" to feel certain that you can and will do the best job possible.

This certainly sounds like a sales pitch. It is! And as often mentioned in this book, the ability to persuade other people to "buy" your talent and ideas is no less essential than the ability to generate and explain your ideas. Effectively selling yourself and your services requires two complementary conditions: you must have something to sell, on the one hand, and there must be a need and a market, on the other.

For that first office job, getting hired can be tough. You believe you have something to sell—your talent, knowledge, and skills acquired in school—but you quickly learn that prospective employers also want experience. You lack the latter. How, you wonder, can you ever get that first job if only experienced architects are employable? To gain experience, you must get that first job. It can seem like a vicious circle, a catch-22 phenomenon, but eventually most intern architects find that first job. A job opening and offer occur when a firm realizes it needs new help, often because of a new contract and project, and believes you are ready, willing, able, and immediately available. In fact your first job as an intern is frequently the result of being in the right place at the right time. Luck and timing are always factors in the marketing process.

Economic Conditions

Neophyte architects and architectural firms face the same problem in getting work in addition to normal competition: marketplace uncertainty and variability. Jobs with firms exist only when firms

have projects to work on and projects depend on many people and forces beyond the control of the architect. National and international economic conditions as well as local economic health greatly affect building activity and consequently the employment of architects. If credit is available and affordable, prices stable, and consumer and business optimism high, society builds. But if money is tight and the economy is stagnant or in recession, building slows down. Understandably architects are bellwethers, sensing shifts in building mood early in the building process through the mood shifts of clients, contractors, lenders, and other real estate and building industry participants. When it is boom or bust for the country, it is generally boom or bust for architects.

Territory

Markets are geographic and territorial. Most individual architects make locational decisions before any other major decisions regarding their careers, and firms must do the same, at least until they achieve regional, national, or international status. Architects must decide where to be—in what state, county, city, and neighborhood—and where to build, which is not limited to only that area immediately surrounding their offices. Selecting a market territory may be influenced by factors such as potential for population and economic growth, preferences for climate and natural environment, urban or exurban amenities, lack of competition, social or business affiliations, and family considerations. Some of these factors have to do with the market itself, whereas others relate to the personal concerns of the architect.

Market territories can be very small or virtually unlimited in size. Most architectural firms concentrate on local markets, rooting themselves in towns, counties, or cities and doing most of their

projects within these local jurisdictions, their home turfs. Cities such as Boston; New York; Washington, DC; Miami; Chicago; Los Angeles; or San Francisco are metropolitan areas composed of many local jurisdictions, so architects' practices, though still considered local, may cross multiple political boundaries.

Some architectural firms, as they grow and become better known, expand their territory to include entire states and regions such as the Northeast, the West Coast, the Midwest, or the Sun Belt. Regionally based architects may be known for designing projects whose language of form and material derives from local building traditions that respond to local culture, climate, and ecology—New England, the Southwest, and the far Northwest, for example. A few well-known architectural firms with national and international reputations are able to practice worldwide, doing projects far from where their various offices are located. Their projects may be anywhere in the country or overseas. Somewhat insulated from local market conditions, they may not even compete for local work unless it has national or international significance.

Not all firms with geographically diverse practices are well known or celebrated. A number of large architectural and engineering firms do specialized projects throughout the world, often involving complicated programs and sophisticated technology and requiring many employees to carry out the work over several years. Yet these firms' names are not household words, either within or outside the architectural profession. They provide services mostly to industry, domestic and foreign government agencies, and real estate developers. Much of their work, though large and complex in scope, receives relatively little media attention. But they too are less dependent on local markets.

Types of Markets and Clients

Architects spend a lot of time thinking about the type of market and client they want to pursue. Firms pick their territory but they also must decide on the kinds of projects they want to do within that territory. Generalist architects go after any and all work that comes along and in which they are interested. They may choose to specialize in certain types and sizes of projects if they have a choice, such as single-family residences, multifamily housing, office buildings, health-care facilities, educational buildings, or hotels. They may seek only prestigious, generously budgeted institutional commissions such as museums, libraries, theaters, corporate headquarters, university buildings, or city halls. Or they may stick to the opposite end of the cost-status spectrum, doing only tight-budget, bread-and-butter projects such as shopping centers, low-rent offices and warehouses, factory structures, and moderate-income housing.

Still other firms specialize in historic preservation and in restoring, retrofitting, and adaptively reusing aging architecture. Architectural preservation represents a growing market for architects as US inventory of older, technically or functionally obsolete buildings grows. Indeed, renovating and repurposing old but structurally salvageable buildings, whether or not they are historic, can be a very effective sustainability strategy. It conserves most of the resources—labor, materials, energy, and money originally invested and permanently embodied in such buildings.

Given the choice, many architects would probably prefer their market territory to be national and international, as well as local, and that their projects be of all types, as long as projects are high budget, visible, and prestigious. Obviously this is hard to achieve. In fact, most architects end up doing what they do for circumstantial reasons. They locate, begin practice, and establish

reputations based partly on the kind of work that first comes into the office and gets built. This early work contributes to creating a track record and reputation, the buildup of experience that employers and clients look for. Once on a track with a specific kind of reputation, it can be hard to get off that track but it is not impossible with ample talent, some luck, and much promotional effort.

Selecting Architects for Projects

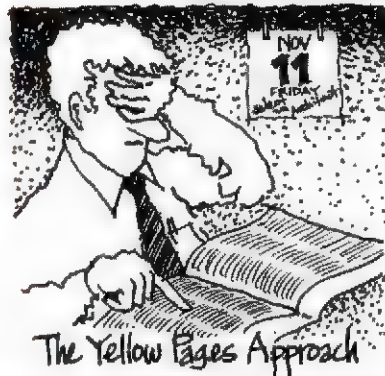
Why and how do clients select architects? The rest of this chapter answers this question in two ways. First, we will see what clients look for, already hinted at previously. Then we will explore the specific actions architects take to make themselves known, loved, and chosen.

Many years ago, working with architecture students in a required course focused on professional practice, I wrote "An Assessment of Architectural Practice," published by the University of Maryland School of Architecture, Planning and Preservation. We tried to identify reasons that clients choose architects. Our conclusions were based on a limited survey in Maryland conducted by the students, who submitted questionnaires to architects and nonarchitects. Quoting directly from the document are these findings:

Survey respondents, including architects, were asked to identify the most important considerations in choosing an architect. Following are the frequencies of response:

Design talent and creativity	50
Prior experience in similar work	33
Organization and management skills	29
Knowledge of practical aspects of building	15
Reputation	6

How to Select an Architect



When asked to rank those architectural products that "sell" best, or are most in demand, architects gave highest ranking to "functional design," "competitive fees," and "economy/cost control," and lowest ranking to "building image," "aesthetics," and "innovation/novelty."

Further, having served on several architect selection committees for governmental and institutional projects, I have seen evaluation forms with listed criteria used to assess relative qualifications of competing architects. Such forms attempt to

quantify the process. Relative scoring weights are assigned to each criterion. Not surprisingly, sometimes the weighting factors correspond with the described response distribution. Thus we can begin to understand the viewpoint of many clients. With no particular ranking, consider the following criteria for selection:

1. Credentials and professional experience
2. Creativity, inventiveness, style
3. Personal qualities, integrity
4. History of performance and meeting client goals
5. Fees, financial arrangements
6. Rapport with client
7. Convenience in location and accessibility

All these criteria reflect characteristics defining a firm's reputation, what it is known for, and how it is perceived by competing firms and by others in the industry. A client, after selecting and working with a particular architect, may conclude that some aspects of the architect's reputation were unfounded. Nevertheless, in selecting an architect, it is the client's perception of reputation that matters, and those perceptions are shaped by the quality of evidence presented by the architect and by those who know the architect well enough to validate the reputation.

Although most of these criteria are self-explanatory, several merit further elaboration. Consider number two, for example. Some clients are interested in choosing an architect who not only is reputed to be creative and imaginative but who also does work seen to be in fashion or cutting edge. Or they may shop for a specific brand or style, scrutinizing architectural firms' recent projects and verifying their aesthetic track records.

Item four, performance, is critical to many clients. They look for architects who meet deadlines, whose projects are buildable

and satisfy budget limitations, whose offices are neat and smoothly managed, and who can provide a long list of satisfied previous clients. This item is closely related to criteria six and seven because for all clients, good rapport with an architect is indispensable. They ask themselves, Can we communicate with each other? Does this architect understand and sympathize with our needs and problems? Are we comfortable working closely together? Do we share the same values and aspirations regarding the project? Will we ever see the senior partner again?

Unfortunately, some clients associate firm size with ability to perform, assuming that only big firms can do big projects. Big firms do not necessarily perform better than small firms, although they clearly have substantial marketing and person-power advantages. Regardless of firm size, it is the project team that counts, and the team available in a small firm may be as large and capable as the team assigned by a large firm. Indeed, one advantage of small firms is that more work is likely to be done by the firm's principals and senior staff, perhaps with more commitment, creativity, and care because such projects are less common and therefore more important for smaller offices.

Matters relating to criterion five can be the stickiest. The architect's ideal client is one who is willing to pay whatever it costs to do the job right but almost all clients are cost conscious to some degree, and for many the cost of architectural services may be a primary factor in selecting an architect. Three disparate forces act on fee negotiations. Force one is what the client believes to be an affordable fee relative to total, anticipated project development costs. Force two is what the architect believes to be an adequate fee given the scope and complexity of anticipated design work. Force three is what the so-called market fee appears to be, that is, what the competition generally would charge. Force one fees

are generally below force three fees, whereas force two fees are generally above. Persuading clients to pay fair and adequate fees is not easy in this situation. Occasionally failure to agree on fees can cost architects the job because clients always can find architects who will do the work for less money.

In addition to shopping for fee bargains, some clients may also want to negotiate fee payment terms unfavorable to the architect's cash flow. Thus the total amount of the fee could pose less difficulty than how and when fees are paid. Clients sometimes ask architects to defer receiving payment until some future date or to accept a note (IOU) or ownership interest in the project. This basically makes the architect a banker.

Nevertheless, architects who are skillful negotiators can overcome such difficulties by convincing clients that, in truth, one gets what one pays for. This requires taking time to show the client precisely what must be done to execute the project correctly, completely, and creatively. Time and cost allocations must be shown in detail so that the client understands how and why proposed fees have been calculated. Each step in the design and construction process must be identified and explained. Once the client comprehends the scope of work and the architect's cash flow requirements, and if the client believes that the architect is the right one for the project, then architect and client usually can reach agreement, even knowing that there are other firms that would work for less.

Governmental clients can be the exception because they may be required by statute to choose architects who, after meeting minimum qualifications, offer services for the lowest fees. For this reason some architects do little or no government projects. Those who do sometimes lose money or break even. But such work can

pay the rent and keep the staff busy while partners look for more stimulating and lucrative commissions.

But not all public work is frowned on by design firms. Federal, state, and local governments regularly undertake interesting or prestigious projects, such as courthouses and libraries, for which firms eagerly compete, primarily on the basis of professional qualifications and experience, not fees. Occasionally, to select an architect for an especially high-profile project, government agencies sponsor design competitions, inviting several well-qualified firms to submit preliminary design concepts that are ranked by a panel of judges. If all goes well, the competitor whose design is top rated receives the design commission. Sometimes design competitions open to anyone interested, and not to just a few invited designers, are undertaken for such projects.

Occasionally an architect, in an effort to secure a commission, may be tempted to make kickback arrangements, whereby a portion of the architect's fee, after being paid, is returned "under the table" or is "contributed" to an appropriately designated recipient. It is easy to understand why a hungry, ambitious architect might agree to such terms with a client when the proverbial wolf is at the door and a new commission is pending. A more subtle and frequent form of kickback manifests itself when architects offer services to clients for fees that are well below and substantially undercutting fees prevailing in the marketplace. This is legal but ethically questionable and ultimately self-destructive. It devalues architects' services in general, increases pressures for further fee cutting among competitors, erodes firms' profits, and compels firms to continue paying relatively low salaries to their employees.

It must now be evident that architects cannot be passive practitioners in today's world. We cannot behave like sellers in a seller's market, when in reality it is usually a buyer's market.

We cannot assume that a combination of aptitude, talent, good credentials, and the right start will lead inevitably to success and an ample supply of work. We must go after work because all of our colleagues do likewise.

It also must be evident that because reputation counts for so much, getting work must mean getting known. Becoming and being known as an architect achieves the same purpose as it does for McDonald's, Google, or Mercedes-Benz: name recognition, product reputation, and branding. Architects are compelled to find ways to promote themselves, advertise their work and their ideas, and let clients and the community know who they are. As we shall see, some architects do this overtly, some in more subtle ways. Some efforts verge on commercial advertising, whereas others lead more indirectly to notoriety, brand recognition, and favorable reputation. However, any one of the activities described here can in some fashion contribute to making an architect known and in turn help to get work. Remember too that not all architects engage in all of these activities. Indeed, some activities are still thought to be unprofessional or even unethical by many architects.

The Direct Approach

The most obvious strategy for getting work is to go after projects directly, using one of several strategies:

- Identify project prospects and leads by reading online and in-print news reports, magazines, journals, and government and business publications, looking for items that advertise or mention future or pending projects.
- Maintain and update the firm's graphically appealing, informative, and easily navigable website showing the firm's most interesting recent work along with firm capabilities, qualifications, and current and past clients.

- Communicate with and cultivate prospective clients; prepare and send promotional materials tailored to appeal to each potential client; express the firm's interest in the client's project; and always mention awards, projects, and special project features relevant to the client's project.
- Disseminate regularly a firm newsletter, in print or electronic form, as well as press releases sent to local newspapers and national journals announcing awards received, significant new projects, new members of the firm, new office locations, and other news; always include images of work.
- If time and finances permit, enter local, regional, national, and international competitions; although the chances of winning may be remote, you can have fun doing them and your competition design can be added to your website, portfolio, and résumé even if you don't win.
- If all else fails, you can advertise (once considered an ethical violation by the AIA). Commercial mass media advertising is legal, but because many architects find it unprofessional and very expensive, few engage in it; however, many firms do act as sponsors for, and contribute money to, public interest or trade organizations, which often acknowledge such gifts publicly in magazines or on TV and radio broadcasts.

The Indirect Approach

The indirect approach to promoting oneself or one's firm is more commonplace. In addition to marketing directly to prospective clients, architects can enhance name recognition and reputation through activities that are less commercial, more subtle, and often as effective as the direct approach. Many architects deem these activities to be more professional than advertising.

- Be socially active. Entertain people, especially those who might be potential clients or might refer clients to you. Membership and participation in appropriate clubs or social organizations may prove fruitful, expanding your network of acquaintances.
- Become civically engaged by joining and participating in community, public interest, business, and professional organizations. Architects can make useful, pro bono contributions and they also can meet important and influential people, further expanding their network of contacts and potential clients.
- Publish finished projects in local, regional, or national media—print and digital—such as newspapers and professional journals. Hometown newspaper articles can be as effective as direct advertising and exposure in professional and trade journals enhances an architect's reputation among colleagues and prospective clients.
- Give lectures and talks to community groups, in schools, and at professional conferences, including those not primarily aimed at architects. Participation in seminars, workshops, and other educational programs further contributes to one's public persona, name recognition, and reputation.
- Submit projects on a regular basis to local, regional, and national design awards competition programs. Typically this requires good photos and drawings presented in a graphically compelling way. Expect recognition to be periodic because work awarded depends largely on the tastes and moods of design awards juries. Publicize such awards whenever possible.
- Write about architecture, either articles or books, if you have time, because writing is very time-consuming. Any subject will do if someone will publish it, although controversial subjects,

personal manifestos, and visually compelling material may attract the most attention. Through websites and blogs, the Internet has greatly facilitated dissemination of articles and images, and self publication of graphically well composed books also has become much easier and more affordable.

- Get others to write about you and your work if you have done something significant or your work has become sufficiently interesting. Being the subject of someone else's writing, even as the object of criticism, can establish you as a celebrity in the eyes of the reading public and among many reading architects and architectural aficionados. This is accomplished most readily when you have friends or acquaintances in the media, particularly journalists who write about architecture.

Self-promotion by architects is easiest when their work is newsworthy or when they become so well established that anything they do or advocate gains an audience. Becoming recognized, respected, and famous is difficult for those who do only competent work and almost impossible for those who do mediocre or uninteresting work. But it may also be difficult if they make no effort explicitly to promote themselves using the tactics outlined. It is not enough just to be good at what you do, to be an expert or a great talent. Something more is needed: you must be willing to tell the world what you do.

Assuming that an architectural firm has established itself and enjoys some kind of positive reputation, it still must face the reality of competition because typically many firms may be perfectly well qualified for a given project at a given time. This means that at some point, firms must use the direct approach to obtain commissions, no matter how successful they have been using the indirect approach. How, then, do clients and architects finally get together?

Generally, architects are selected to do a single project. Unlike doctors, lawyers, or accountants, who usually have continuing relationships with clients over extended time periods, the architect may do only one project for a particular client. If hired again by the same client, it is still on a project-by-project basis. Nevertheless, many successful firms pride themselves on the amount of repeat business they get from satisfied clients who keep coming back for more.

More typically clients hire architects with whom they have not worked before. They find and select them mostly through these avenues:

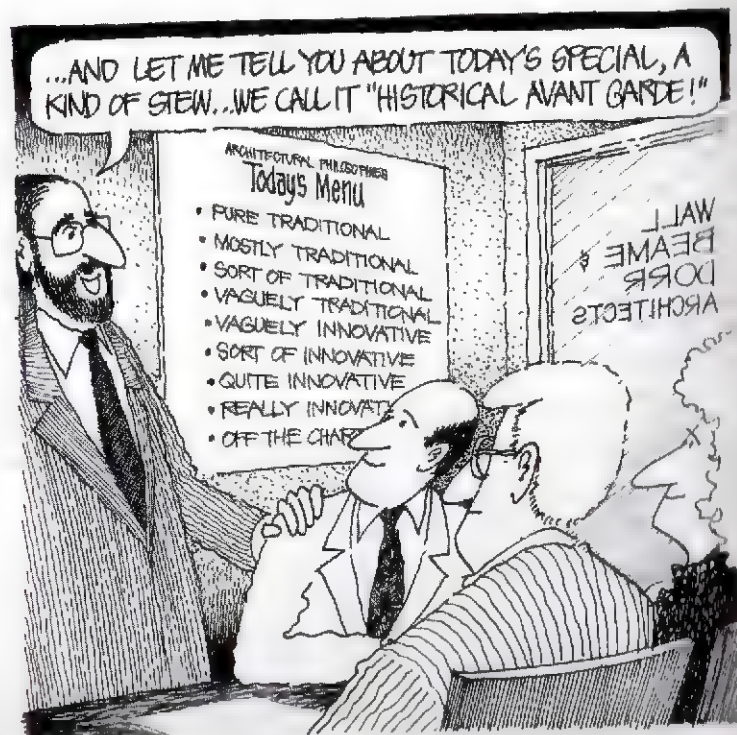
- Personal contact, either social or professional
- Referral, based on reputation and experience
- A screening process, based on professional qualifications
- A screening process, based in part on fees
- Client-sponsored design competitions

Indeed, architectural firms get much of their work through referrals and personal contacts. Even then, they must sell themselves because clients often interview several architects before making their final choice. By contrast, government projects, once set in motion, are first announced in newspapers and other periodicals with a request for all interested design firms to submit letters of interest and statements of qualification. Agencies usually appoint screening committees to narrow the list of interested firms to those few they want to interview. After interviewing the short list of firms, they make their choice. Often nongovernmental institutions take a similar approach when selecting an architect.

The Interview

Skill is required to woo and sign a client, and it must be applied especially effectively in that most critical of architect-client

encounters—the interview—of which there can be more than one to obtain a commission. An interview is like a first date; initial impressions are vital and enduring. Interviewing is a performing art. The architect must be charming and persuasive as well as informative to enthrall and captivate the client. The romancing is done with words and projected images and videos. Well-composed, slickly printed portfolios or books, illustrating with photos and drawings the firm's relevant project experience, back up the architect's proposal. Proposals also typically describe the firm's proposed project team, including consultants, the work schedule, the project management approach, and often the designer's philosophy and design strategy. This is the proverbial dog-and-pony show.



Having captured a prospective client's attention, architects still must convince the client that their firm alone possesses the unique qualities the client seeks and that their future working relationship will be ideal. Most important, they must demonstrate their profound understanding of the project and the client, their familiarity with the site and program, their insight into the project's special requirements, and their respect for the budget and schedule. Fees for services are usually the last discussion point during an interview and ideally should be explored in detail only after the architect has been chosen.

Joint Ventures

To compete more effectively, architectural firms sometimes form joint ventures with other architectural firms or with engineering firms. A joint venture is a temporary partnership between two or more firms created for the sole purpose of pursuing and carrying out a specific project; the firms otherwise continue to conduct business as separate entities. Joint venturing can expand geographic coverage and broaden expertise or it can provide a firm access to a market previously inaccessible. Joint ventures are marriages of convenience, transforming small firms into big firms and big firms into bigger firms. Boston firms can become Chicago firms or office-building firms can become hospital firms. Occasionally joint ventures result when clients want a design-oriented firm to team up with a nuts-and-bolts, production-oriented firm. In this instance, the former usually takes responsibility for the schematic and design development phases of architectural services and the latter prepares construction documents and oversees construction.

Architects as Contractors, Construction Managers, and Developers

Some architects keep busy by offering clients construction management or design-build services. In the design-build mode, architects wear two hats: they act as designers and construction managers, performing the functions usually performed by general contractors. Many design-build architects undertake only modestly sized projects, primarily residential and small-scale commercial projects such as office buildings or retail stores. But a number of diversified A/E firms have their own construction management departments and provide such services for larger projects, directly competing with general contractors and firms specializing in construction management.

Merging architectural and contracting functions seems appealing for architects and clients because it reduces the number of organizations a project owner has to deal with and gives the architect full control over construction. But there are financial risks for client and architect if the architect's cost estimates and bids are too low or if the project is undercapitalized and monies run out before completion. A potential conflict of interest exists for the architect; although the client seeks the most value and the best quality (within the budget) from the architect and contractor, the contractor's objective is usually to build the architect's design at the least possible cost, an incentive to cut corners and compromise quality. If the architect plays both roles, there is no mediator between the owner and the contractor. Ultimately the outcome of design-build relationships depends on the integrity and financial acumen of the architect.

A few architects become real estate developers, designing projects in which they have a significant ownership interest. Being

one's own client can be very appealing. The architect-as-developer strategy represents a potentially rewarding but financially risky means for staying busy. Not only can practicing architects earn substantial profits as developers, and potentially more than they can as architects, they also can exercise greater control over the final design within the limits of budgets and marketability because they own the project. Of course, they can lose money, and lots of it, if a project goes sour. Architect developers undertake mostly housing or small commercial projects. Often joined by other investment partners, entrepreneurial architects perform all the functions of the real estate developer—land acquisition, equity and debt financing, construction, advertising, sales, and leasing—in addition to the design functions of the architect.

Projects developed by architects are no more likely to succeed than to fail economically. However, relatively few actively practicing architects have been successful developers and successful architects. Many architect developers have learned the hard way that developing projects is not the same as designing projects. Each requires altogether different expertise, psychic energy, outlook, business skills, and attitudes. Each entails very different risks and requires different kinds of stomach linings. Nevertheless, architects always will be tempted by the perceived liberty and potential profitability of designing projects for which they are also the client.

Design Competitions

Competing for architectural prizes or commissions on the basis of proposed designs has a long history. Many notable monuments and public buildings and a fair number of private ones have been built as the result of design competitions. There are several ways to conduct a design competition but most competitions fall into one of two categories: open or invited. In an open competition, as the name implies, the sponsor generally accepts design submissions

from anyone qualified to enter, although qualifications can be restrictive—for example, competitors might be limited by nationality or geographic location. In an invited competition, the sponsor, after first screening the qualifications of architects expressing interest, interviews and selects only a few from whom design proposals are solicited. In both cases, a jury composed of professional designers and client representatives, designated by the competition sponsor, usually reviews the design concepts, ranks them, and selects the winning proposal.

Competitions can be conducted in one or two stages. In the latter instance, there are two rounds of design: a first round to narrow the field and a second round to pick the winner. In open competitions, competing designers receive no compensation for their work. In fact usually they must pay a fee to enter. In two-stage, open competitions, only the finalists who make it past stage one receive a stipend, and even then the often modest fee rarely covers the costs of producing the stage-two design submission, much less the work done for stage one. By contrast, architects invited to participate in a competition among a small number of firms, whether in one or two stages, typically are paid a preschematic design fee by the sponsor. However, these fees also are likely to be nominal, well below the cost and value of the work that the firms must produce.

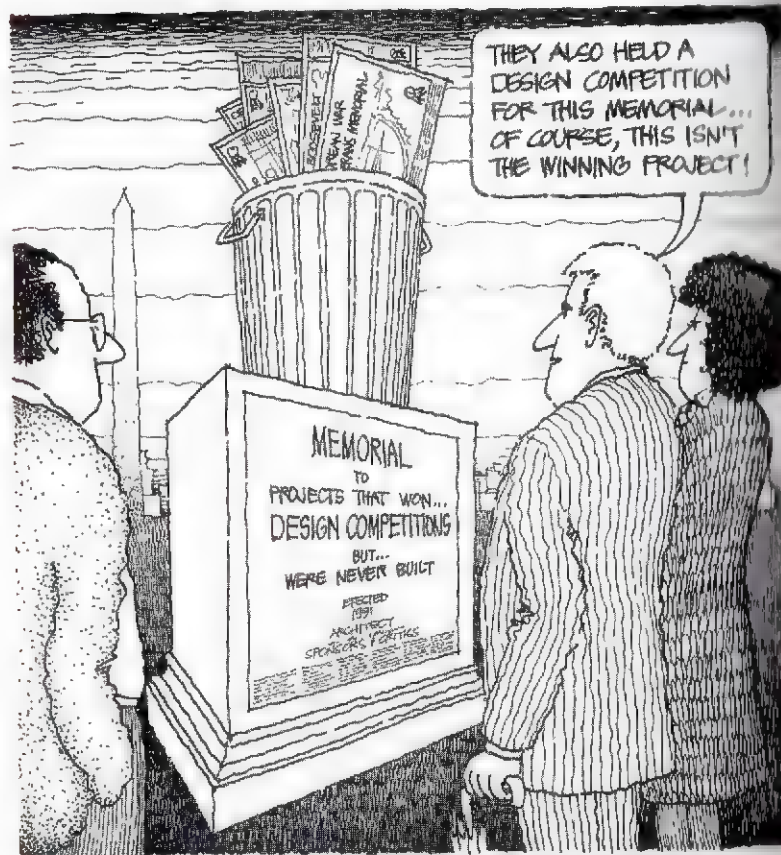
Some architects believe that design competitions are one of the fairest methods for selecting architects. Other architects hold the opposite view. The former believe that open competitions offer small firms and creative but still undiscovered architects the opportunity to score quickly and emphatically, to make their mark and gain recognition against overwhelming odds, and to win monetary prizes and significant design commissions. They further argue that design competitions bring out the best designs

and stimulate the most innovative design thinking, bringing forth design proposals that the average or nonchalant architect, working with a conservative client, might never dream of.

Competition cynics or opponents claim that competitions are inherently unfair because the outcomes often reflect the biases of the jury that selects the winners and fail to address and grapple with the needs or tastes of the client and project users. They claim that competitions favor either well-established architectural firms with ample financial and staff resources, allowing such firms a potential edge in presentation, or, conversely, firms whose work load is slack. Architects who are busy may have difficulty finding time to undertake competitions without compromising the competition effort and their efforts on behalf of their regular, fee-paying clients. Another objection is that many competitions are exploitative and poorly managed, with ambiguous rules and requirements. Architects also have accused some sponsors of being exploitative, taking advantage of architects' willingness to go for the brass ring and using the competition process to obtain design ideas at minimal cost.

A very small percentage of all projects in the United States designed by architects are the result of open or invited design competitions. Frequently, winning designs are never executed because the projects are abandoned, were never real, or proved too expensive or impractical. When a prize and a commission are awarded, the winning architect may still suffer financial loss or be decommissioned, subsequently excused from completing the work for technical, economic, or political reasons. Even worse, his or her design may later be altered and executed by someone else. And in many competitions, vital interaction between architect and client during the formative phases of design is missing.

Ultimately design competitions, as a method for getting work, are a long shot for almost all architects in practice. Competition sponsors and the projects they build clearly benefit from the profusion of ideas and the investment of thousands of hours by



all the losing competition entrants. But competitors, after a costly search for success and recognition, may end up with little more than feelings of frustration, envy, and sour grapes, no matter how much fun was had participating. Yet, to be a winner . . . !

Free Services

One questionable marketing tactic is worth noting: doing work for free. For many years the AIA and the profession in general condemned the practice of furnishing prospective clients with free sketches, designs, or other services without fair compensation. To do so was considered unprofessional and unfair. Yet this occurs frequently. It is the architect's loss leader, the come-on to attract the client's business. But there is nothing illegal about providing free services (unethical, perhaps, but not illegal).

Intense competition among architects, along with more aggressive marketing practices, puts pressure on architects to do a bit of up-front work for free as an inducement to prospective clients. This pressure is hard to resist if you believe that everyone else is doing likewise. I have participated in architect selection committee interviews during which firms, not yet selected and



with no compensation, have presented unsolicited, detailed site and program analyses, plus schematic design concepts, which cost many thousands of dollars to generate. This work is an integral part of basic design services and thus has a measurable economic value that should be paid for. But to gain a competitive edge in pursuing commissions, many firms are willing to gamble and make the investment. Sometimes it pays off, sometimes not.

You surely will face the same pressures during your career. How much free work should be done for a prospective client in the interest of courting that client before you are selected and given a contract? When the contract beckons and the project promises new design opportunities, it is hard to know where to draw the line.

11 Architects' Clients

Most architects are employed by clients who contemplate building something. Some architects think of clients only as sources of work and income but most good architecture is in fact the result of successful design collaboration between a talented architect and an enlightened, motivated client.

A client may be a person, a couple (married or otherwise), or an organization. Partnerships, corporations, nonprofit institutions, and governments can be clients. A lawyer would tell you that an entity needs two things to be a legitimate client: lawful existence as an entity with authority to enter into enforceable contracts; and money or access to money. For architects the latter criterion may pose more problems than the former because there are loads of clients with no funds, many clients with inadequate funds, some clients with barely enough funds, and few clients with unlimited funds.

Architects can have great clients or difficult clients. Great clients are perceived to be receptive to most, if not all, the architect's design ideas, to give the architect wide design latitude, and to spend money in the interest of creating a work of art. They are decisive yet accommodating and they rarely make changes to a design once they have understood and embraced it. Such clients also willingly pay the architect's fees and continually praise the architect's work.

Difficult clients display opposite characteristics. They question not only the architect's ideas but also his or her comprehension of programmatic, financial, and scheduling requirements. They nitpick, complain about costs, and make decisions slowly. Agonizing forever over each design issue, they often insist that the architect generate limitless design studies and alternative schemes

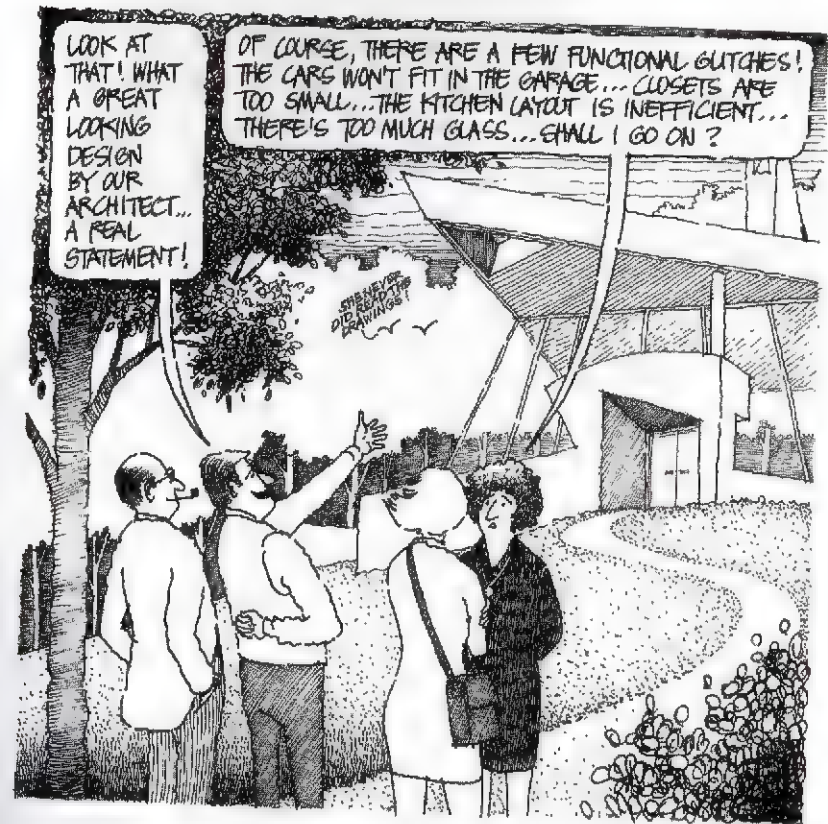
before agreeing to one. Even then, such clients think nothing of asking for more changes. And of course such clients may squawk when they receive the architect's bill, wondering how a few sheets of drawings could cost so many thousands of dollars.

Great clients respect the architect as a professional, a creative artist, a problem solver, and a technologist, and they can accept inevitable minor imperfections as part of the price of attaining worthy aesthetic and functional goals. Difficult clients may think of the architect as a necessary but obstructive provider of costly services, insensitive to practical issues, careless, egotistical, and periodically incompetent. Because many clients have only one direct professional encounter with an architect during their lifetime, that unique experience may forever color their perception of what architects are like, making them either skeptical or believers in the value of architects and architecture.

Household Clients

The most plentiful type of clients are households composed of people who want to improve the quality of their personal living environments, whether an apartment or a house. Household clients—singles, couples, families with children—hire architects because they want to build a new residence or remodel an existing one. In all cases, they seek more or better space, privacy, security, convenience, and comfort, and, in many cases, ego satisfaction. They expect the architect to provide a design that can be built by a contractor within the client's budget, a design yielding a functional, structurally sound, dry, easily maintained environment that is neither too hot nor too cold. But the architect and client typically strive for more: creating a habitable work of art.

A household client occasionally asks the architect not only to design the building but also to furnish and decorate the interior



selecting furniture, floor coverings, wall and ceiling finishes, decorative trim, colors and fabrics, light fixtures and lamps, window treatments (drapes, shades, blinds), artwork, and maybe even ashtrays. The line between architecture and interior design can blur because domestic interiors are also the province of another profession—interior designers and decorators.

Intervention by the client or by decorators in designing interiors is seen by many architects as unwanted intervention. But all decorators and many clients hold the opposite view, insisting that architecture is concerned mostly with the exterior of buildings and, at best, only the layout and geometric shaping of interior spaces. Inside, the will of the decorator and client, not of the

architect, prevails. As a result, many well-conceived works of architecture have been spoiled visually by bad decorating decisions. Conversely good interior design can help cover up bad architecture.



Household clients can be the most demanding of all clients. Their project may be among the most important single undertaking of their adult lives, financially and psychologically, whether a back porch addition, a remodeled kitchen, or a new multimillion-dollar home. Residences are personal and intimate places where ego investment is high. Unique behavior occurs there.

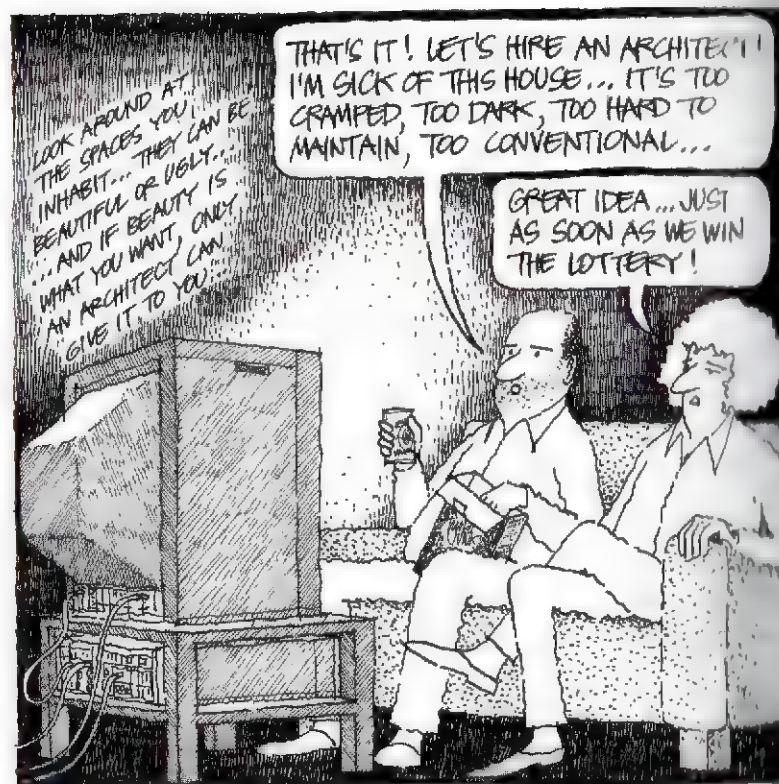
In our homes we sleep, eat, practice hygiene, make love, read, work, recreate, communicate, socialize, or simply survey that tiny part of the world over which we have dominion.

Home represents an investment not only of money but also of self. Thus for the household client, life's most fundamental needs, desires, activities, experiences, and resources are involved. This is why people are willing to commit much of their income and time to their personal dwelling environment. Therefore it is not surprising that household clients can be passionately involved, relentlessly demanding, and intensely emotional when their home is at stake.

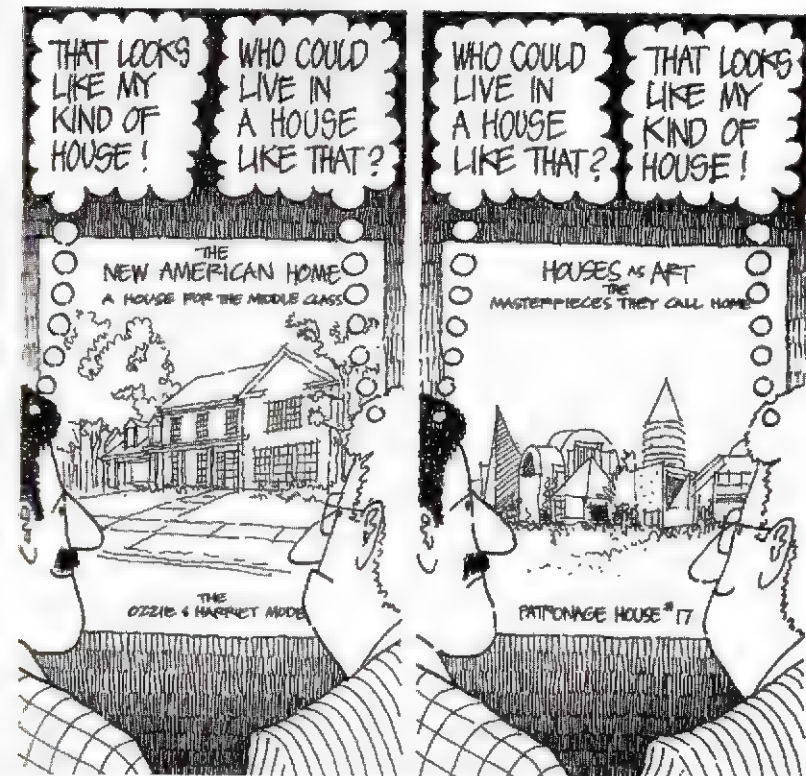
Many clients want fur but can afford only fabric. Wanting gourmet quality, they can pay only for takeout. They may expect flawless judgment by the architect, along with speedy service, ability to predict the future, and error-free design and construction. Some clients assume that architects have unlimited control of contractors and unlimited knowledge of building products, not to mention the power to ensure that construction is finished on time and without cost overruns.

For their part, architects often expect household clients to be receptive to their every design whim and proposal, to tolerate delays and errors patiently, and to be willing to increase their construction budget if bids are too high. Architects can fail to warn clients adequately about the limits of the art and science of architecture and construction. The imperfections and unforeseens that may in fact be acceptable to the owners of airports, office buildings, shopping centers, or schools are frequently unacceptable to homeowners.

More than a business relationship exists between architects and household clients. The sensitive designer in effect psychoanalyzes the client, becoming familiar with the client's



personal habits, tastes, behavior, compulsions, and feelings. The designer may even become enmeshed in the client's domestic affairs. Creating a new home can be a source of household joy and unity or it can bring out repressed or unrecognized conflicts and animosities that otherwise might not surface. Countless architects have witnessed hostile exchanges between spouses or domestic partners over some design issue, whereupon the architect is suddenly thrust into the role of family counselor and peacemaker. Usually the architect can mediate successfully but sometimes building a dream house can undo a household relationship.



Architects design houses as much for fun as for profit, although they can make a good living designing homes. Some architects are happy just to break even when working for household clients, some of whom cannot afford to pay the fees required to cover all the architect's time and overhead costs. Most large architectural firms do houses only as a favor to someone. Yet house design continues to receive substantial attention in the media and from many architects, because designing houses for household clients often gives architects the best opportunity for design experimentation and aesthetic innovation. As loss leaders,

residential projects also may bring bigger, more profitable work in the future, thanks to appreciative household clients of the past.

Real Estate Developers

Architects would like to believe that their goals are the same as their clients' goals; they frequently are not. In particular, the architect's desire for aesthetic self-expression may be of little or no concern to the client. This is often true in the realm of commercial building, the world of profit-motivated real estate development. Commercial clients' motives are quite different from those of clients' building homes for themselves. The market-oriented client is ultimately interested in one thing above all else: economic success, measured by positive market response and a good return on investment.

The majority of investment in building construction in the United States is commercial development undertaken by private business entities. It includes office buildings, multifamily housing, subdivision housing, hotels, retail shopping facilities, industrial and warehouse buildings, and recreational and entertainment facilities. Many clients developing commercial properties view their projects not as artful works of architecture but rather as investments that produce income, money machines that yield profits. Without the prospect of profit, such projects would never be built. Developers don't oppose good architecture, especially if it adds market value, but architectural value is subordinate to economic value.

A client developing commercial property naturally looks for architects who design attractive buildings that are cost-effective and easy to construct, efficient to operate, and good revenue and profit producers. Here occurs the potential conflict between architect and client. The architect may propose designs that

achieve the opposite, costing more to construct and operate without corresponding increase in potential revenue and hence less potential investment profit. If construction and operating costs are too high and revenues too low, the owner will lose money.

Even developers experience self-conflict in dealing with their own self-imposed economic constraints. On the one hand, they must opt for a level of design quality and amenity necessary to capture the targeted market and generate anticipated revenues. On the other hand, they risk offering too little for the price and losing out to competitors who offer more. Accordingly, the architect tries to sell good design to developer clients on the basis of sound business and investment thinking, arguing that better-quality design and increased spending will result in faster and higher rentals or sales. This is a language that commercial clients can understand, although they must be convinced.

To developer clients, the ideal architect thoroughly understands their goals and limitations, along with building economics; always meets budgets and deadlines; readily obtains approvals from building officials and government review agencies; turns out error-free, easy-to-read drawings for easy-to-build buildings; and designs buildings that work well and look good at the same time.

There is no shortage of architectural firms claiming to offer all these things, and certainly some can deliver. Developers learn quickly about architects and the kinds of services they provide. The architect responsive to their aspirations and requirements is the architect they will choose and stick with. As long as a mutually satisfactory relationship exists, that architect will have a loyal client. But let something go wrong and the client will look elsewhere. It should not be surprising that there are architects who

are excellent designers but whom many developers would be reluctant to hire.

To many architects, the objectives, values, and attitudes of commercial real estate developers lack vision. Architects argue that too many developers sacrifice human, cultural, or environmental ideals to the so-called bottom line, rejecting attempts by architects to design artfully. Developers, say many architects, fail to provide enough time and money to execute projects properly. They feel that some developers are abusive, demanding acquiescence, get-it-done-yesterday performance, and flawless work, all for insufficient fees. Architects protest that developer clients commonly exploit architects economically, insisting that compensation for services be deferred as a condition for getting the design contract. In effect, extending credit to a client for thousands or hundreds of thousands of dollars is risky and makes architects lenders.

Some developers and many architects believe that art and commerce can be successfully reconciled, although not always easily. It is more difficult to create award-winning architecture in the face of severe economic constraints than when such constraints are relaxed. Although the United States is littered with millions of bottom-line, architecturally banal buildings, there are nevertheless many structures that have succeeded commercially and aesthetically as well. Regrettably there are also many that have been judged aesthetically successful but have failed as investments.

Architects sometimes have sacrificed ideals by turning out mediocre work or by abandoning the commercial sector of the design market to lesser talents. Developers take note of this by pointing to deficiencies they attribute regularly to architects: delays, cost overruns, inefficient or unbuildable designs, unworkable construction details, wasted space in buildings, confusing or incomplete drawings and specifications, incorrect use

of materials, and poorly coordinated structural or mechanical systems. Although developers are usually more sophisticated about construction, their expectations concerning professional performance by architects can equal those of household clients.

An astute developer client would probably assert that creating buildings is a business, not an art, and that these tactics are just sound economic practice. If architects can participate in this business and create art at the same time, that is fine, as long as their priorities do not supersede the client's. Some architects are willing to work on these terms; others are not. With each client and project, architects must examine a prospective client's values and compare them with their own. The architect looking primarily for aesthetic patronage will usually not find happiness on the bottom line.

Corporate Clients

Most real estate developers operate as incorporated but small businesses. Corporate clients are different. They often are large, departmentalized institutions with hierarchical decision-making responsibility dispersed from top to bottom. They have multiple management levels, ranging from the CEO down to department heads. Specialization abounds: marketing, finance, production, construction, estimating, purchasing, accounting, project management, property acquisition, and maintenance, to name a few. Each person in the corporation has an interest in what the architect does, which is colored by his or her respective area of responsibility.

When the architect designs for a corporate client, there are really dozens of clients. Marketing managers, concerned with selling or leasing, see the design as a product to be marketed. Construction managers see it as an assemblage of materials and labor. Finance managers and accountants see projects in terms of

capital investments, cash-flow projections, statements of profit and loss. Property managers see buildings as machines to be maintained after others have built and marketed them. Then there are those overseeing all: the corporation's chief executive officers and active directors. Their interests tend to be earnings, payable dividends, increased stock value, and corporate image.

Corporate kingdoms may contain multiple territories jealously guarded by their respective territorial overlords, some of whom are subject to delusions of grandeur. Such executives are often assertive and insecure. They want to succeed in corporate life, to aggrandize their authority and status, to perform well if not better than their in-house competitors. Corporate managers want to look good within the company along with doing their job properly for the benefit of the company's customers and stockholders.

Architects have to cope with numerous company executives and company politics when working for corporate clients, deciphering the power structure to figure out who makes the ultimate decisions. Once understood, dealing with corporations can become a game the architect can play and, with luck, master by letting each individual in the corporate hierarchy believe that his or her opinion is indispensable, that his or her needs are paramount, and still seek the trust and consent of the top brass.

Many corporate clients are methodical and unemotional in pursuing their goals, operating in a more orderly, well-documented fashion than other types of clients. They honor contractual arrangements more readily, including payment of architects' invoices, partly because institutional rather than personal funds are involved. And corporations may prefer doing business with other corporations. Therefore architectural firms with corporate qualities often appeal to corporate clients. After all, one corporation engaging in intimate corporate relations with another corporation seems like a natural act. Indeed, it's only

human according to the US Supreme Court, which has ruled that corporations are persons.

Entrepreneurs

A frequently encountered commercial real estate client is the individual entrepreneur, the developer whose team is small and who may be building only one or two projects at any given time. He or she may operate using a corporate form of organization or a limited partnership but the mode of operation clearly bears the stamp of one person and one will, unlike most corporate clients.

Entrepreneur clients come closest to being the architect's counterpart. Their egos are at stake, as well as their fortune, if they have one. They are usually willful, decisive, and outgoing, investing much of themselves in their real estate ventures. They exhibit a certain toughness and resilience, plus the ability to make quick decisions based as much on gut instinct as on intellectual analysis. Some have a sense of mission as well as a desire for wealth. To others development is nothing more than a business in which sizable fortunes can be made or lost through financial leverage, the investment of small amounts of the entrepreneur's money, equity funds, and large amounts of borrowed money.

Historically the entrepreneurs of civilization—political, military, artistic, scientific, and religious figures—built monumental architecture and great cities. The spirit, power, and will of such individual figures resulted in work for architects and builders who would have had little to do without the impetus provided by kings, queens, emperors, moguls, popes, generals, and statesmen of the past. The primary goals motivating these historic entrepreneurs were not related to financial investment opportunities or social welfare but their instincts and compulsions were probably similar to those of today's entrepreneurs.

Institutional Clients

The term institutional can mean many things to many people and to different architects. In architectural practice, it usually refers to clients and projects other than those that are primarily investment and profit oriented, although institutional buildings often are used for fund-raising functions. Thus this definition excludes commercial real estate development whose principal purpose is to produce investment income from rents or sales. Further, institutional clients are generally nonprofit organizations, corporate or otherwise, that develop projects for very specific purposes. Typical projects include the following:

Civic buildings such as cultural centers, museums, performing arts facilities

Schools—primary and secondary schools, special schools, university buildings

Religious facilities

Research and health-care facilities—hospitals, nursing homes, clinics, laboratories

Institutional headquarters and administrative facilities

Recreational facilities such as arenas and stadiums

Although a few of these projects may be built for profit-making reasons (such as hospitals and sports stadiums), they are not conventional investment real estate.

Institutional clients operate much like corporate developers in their organizational characteristics, not surprising for institutions that may in fact be legally constituted corporations. The institution itself may comprise a very large constituency, but similar to corporations with countless stockholders, the institution's

behavior is really fashioned by a relatively small number of people who are responsible for making policy and managing the institution's daily affairs.

The architect typically works with an institution's staff members and building committee composed of institutional officers and trustees. Others, either from within the institution or from outside, may also serve on the building committee. Outside advisers may be invited to participate because of their expertise, political pull, or social connections. Active or potential institutional financial contributors are obvious favorites for such committee memberships. In addition, project users may be represented on the committee.

Building committees may have substantial decision-making authority or they may serve in a primarily advisory capacity to other decision makers—chief executive and operating officers, vice presidents, departmental directors, and managers. In some cases, architects may have to deal with a building committee supplemented by other ad hoc, specialized subcommittees that focus on only specific programmatic, operational, and design issues. In these circumstances, architects must navigate more carefully because multiple committees can be in conflict with one another. Good communication and documentation become essential, not to mention wise diplomacy.

Institutional clients may be very sophisticated but many have little experience in dealing with real estate development, finance, architectural design, and construction. In this regard, they can resemble household clients, requiring the architect to guide the process more actively. When projects are complex, institutional clients frequently hire development advisers and construction management consultants. They represent the owner's interest in dealing with architects, engineers, general contractors, subcontractors, financial institutions, and government agencies.

They assist in project scheduling, administration, budgeting, cost estimating, accounting, purchasing, and contract negotiation, acting as a go-between and surrogate client. They can greatly facilitate the process of building when relatively naive institutional clients are involved but they can also duplicate tasks usually carried out by competent architects and contractors.

Some institutional projects have stringent budgets, whereas others may be generously funded. Some are financed privately, through fund-raising campaigns and membership dues, and some receive direct public support and governmental allocations for construction. There are many institutional projects, such as cultural facilities or corporate headquarters, for which the public architectural image is important. Here the institutional client must usually provide a budget adequate for such image making by the architect. For high-budget, high-prestige projects—museums, institutional headquarters, and civic buildings—institutional clients tend to select prestigious architectural firms with reputations for creating iconic architecture.

Architects like to do projects for institutional clients because in their view there is much greater opportunity for producing memorable, newsworthy, and photogenic buildings. Moreover, the number of people participating in the development of such projects inevitably increases the architect's contacts and professional exposure. And the experience of doing special projects may well lead to new project commissions of even greater prestige and expressive potential.

Institutional clients are more likely than some other kinds of clients to pay their bills, although not necessarily on time. But architects also complain about complexities of coping with a client who operates like a giant committee, who makes decisions slowly and quasi-democratically, and who can be at odds with him- or

herself. Design can take longer because the architect must try to satisfy every stakeholder, every person claiming to represent some part of the institution's interest. This is even more difficult when differing personal agendas, tastes, and ideologies creep into deliberations and decision making. In these circumstances, persuasive charisma and charm, along with persistence and patience, continue to be valuable assets for architects.

Government Clients

Government clients are a subset of institutional clients but government agencies and officials have sufficiently unique characteristics to merit special consideration. Architects interact with three levels of government: local (municipal or county), state, and federal. Each is composed of executive, legislative, and judicial branches. However, most projects are undertaken by specific executive agencies of government charged with specific missions. Therefore, architects need to understand how government agencies behave.

Government agencies at all levels build transportation facilities, public works projects, park and recreation facilities, administrative offices, courthouses, law enforcement facilities, fire stations, public hospitals, and sometimes affordable housing for low- and moderate-income families. Public educational facilities are built by local city or county school boards with funding help from state and federal education agencies. Unique to the federal government are projects for the military, domestic and overseas, and US embassies in foreign countries.

Governments are organized into agencies concerned specifically with these diverse areas. Thus we have departments of public works, transportation, housing and community development, education, economic development, parks and

recreation, public safety, justice, health, general (administrative) services, and, at the federal level, commerce, defense, and state. Although funding for construction originates with the legislative budgeting process and is officially carried out under the leadership of the executive, individual agencies actually provide the impetus and management for conceptualizing and implementing projects. And, of course, agencies are themselves corporate-like bodies.

Remember that government's objectives are more complicated than industry's. Private enterprise's ultimate goal is straightforward and simple: profit. The method for achieving the goal is easily summarized: produce and market a product or service. Government, however, must protect and further public health, safety, and welfare. It must promote commerce and trade, tax its citizens, provide security, deliver public services, build and maintain infrastructure, and undertake any other essential tasks that private enterprise cannot or elects not to do. Clearly this is a far more complicated mission to accomplish; although the ends may seem apparent and indisputable, the means are not.

Looking at a government agency as a client, the architect sees a collection of people, laws, and regulations whose purpose is achieving public objectives. Moreover, such objectives usually must be achieved at minimum cost to the taxpayer. Thus capital budgets for most local, state, and federal government buildings rarely enable creation of luxurious, flamboyant, or precedent-setting architecture. Although there are a few notable exceptions, government agencies generally seek attractive, functional, efficient design whenever they undertake construction.

The advantages of working for a governmental client are much like those of other institutional and corporate developer clients. Projects may be large in scope and on occasion of monumental

proportions. Large or small, they can have challenging programs and pose provocative design opportunities. Designing government-sponsored projects benefitting the public is intrinsically a source of satisfaction for an architect. Successful completion of one government commission may well lead to another in the same area of specialization. And once a contract for services is signed, architects know that government agencies reliably pay fees earned for services rendered, unless there are disputes.

On the opposite side of the ledger reside some serious disadvantages. They are in effect a mirror image of the advantages. Projects can be banal, mundane, and architecturally unpromising, no matter how talented the architect or well intentioned the government sponsor. Fees can be inadequate, sometimes limited by statute despite the amount of work required of the architect. Negotiating acceptable contracts with government agencies can be excruciating, particularly when officials may argue that other firms could do the project for a lower fee. And if a dispute arises later, many government agencies think nothing of holding the architect's feet to the fire by withholding fee payment, knowing that the architect has little recourse.

Perhaps the worst attribute associated with government clients is bureaucratic mentality. Not all government officials have it. In fact, it is a characteristic not limited to government agencies. Such minds can be found in private corporations, institutions, and architects' offices. But the word bureaucrat has become most closely associated with government. What negatively characterizes bureaucrats? Above all, it is attitude, not competence or expertise, although these too may be in question at times. This attitude manifests itself as a can't-do, no-way approach.

The negative bureaucrat, in contrast to the positive bureaucrat, looks for reasons not to do or approve things. He or she plays as strictly by the book as possible and, when in doubt, says no. Clinging tenaciously to rules and regulations, such persons tend to be dogmatic and inflexible. They abhor uncertainty and avoid making value judgments, the realm in which architects often must dwell. They shun taking risks and responsibility for any actions that are not clearly prescribed for them in writing. Because no code or regulation can ever anticipate every eventuality, negative bureaucrats can be major obstacles in the path of creative architects.

Equally regrettable are bureaucrats who almost instinctively resist innovation, change, or experimentation, despite the potential for fruitful improvement or discovery. Many are motivated by basic job security concerns. They fear criticism and will do almost anything to cover their respective posteriors. Even more discouraging, and infuriating as well are bureaucrats who exhibit suspicion and skepticism concerning the motives of people with whom their agency interacts. Acting ostensibly to protect the public interest and save taxpayers' money, such officials often suspect that private interests are up to something suspicious: cutting corners, charging exorbitant fees, padding expenses, conspiring with other consultants or contractors. Also, similar to some other types of clients, they may demand and expect an unattainable level of perfection.

Agencies themselves, being bureaucracies, can behave this way collectively. Sometimes the architect finds that negativism is the dominant policy, particularly regarding creative architectural design. For example, many school boards and departments of education have adopted regulations and specifications that permit only the most conventional of design solutions for school buildings. The US Army Corps of Engineers is notorious for its

strictly "engineering" approach to building design, an approach it demands from the architects it hires. Federal, state, and local housing authorities promulgate design standards and other regulations that can make it difficult for architects to develop innovative housing projects, even to save money or conserve energy.

Architects experience frustration in still other ways when working for governments. Changes in personnel can deter the progress of a project's design because new contracting officials may have quite different views or interpretations of mandates from their predecessors. This can occur most dramatically with changes of administration following elections. Sometimes the project itself may be suspended or terminated. Budgets and building requirements may be altered suddenly, compelling the architect to modify or recommence design.

Once designed, most projects built by government agencies are competitively bid because this theoretically ensures that taxpayers will obtain the best price possible in the construction marketplace. It also means that neither the agency nor the architect knows what the project will actually cost until most of the architectural work is completed. If the budget and interim estimates have been unrealistically low, bids can come as a great shock. In some cases government agencies demand revisions by the architect, without additional compensation, or abandon the architect's plans altogether. At best, this is an embarrassment for the architect and, despite losing money, may make collecting still unpaid fees difficult. Unfortunately this can occur with nongovernmental clients as well.

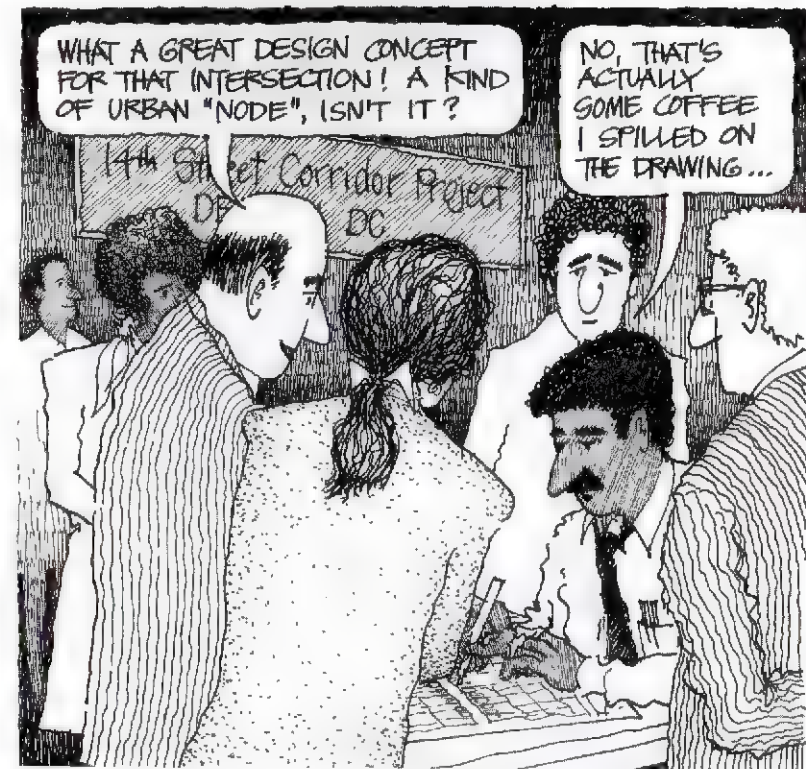
Many architectural firms never do government projects, whereas others specialize in them. Some firms thrive on collaborating with government agencies but some, after trying

once or twice, give up, claiming they only lost money and acquired ulcers. In all cases the type of client you will have depends on the type of architect you become.

Citizens and the Community as Clients

We architects tend to be idealists and reformers, our sights set not only on aesthetic innovation but also on social change. Consequently some of us carry that idealism into the neighborhoods, hometowns, and cities where we live and practice. Many civic-minded architects routinely offer their services—sometimes pro bono, sometimes for nominal fees—to local citizen groups and community associations in an effort to make a difference socially and aesthetically. Community-based design centers, staffed by volunteer architects and architectural students, have been established in many jurisdictions to help needy tenants and home owners improve their dwellings and their neighborhoods. Practicing architects have contributed time and expertise to public schools, homeless shelters, clinics, and other organizations that lack the financial resources to hire and fully pay an architectural firm.

Architects frequently are asked to serve on neighborhood committees, municipal advisory bodies, historic preservation boards, or planning and zoning commissions. They may get paid little or nothing for their efforts but local citizens are invariably grateful for the advice and guidance they receive. There are lots of opportunities in most communities for architects to engage directly in public service, and those who invest the time willingly and effectively are likely to be asked to do more. The challenge is knowing when to say yes and when to say no, given competing time demands. In any case, having the community as a client can be rewarding in two ways. First, it can provide that special



satisfaction that comes from doing good deeds and helping others. Second, and not incidentally, it can increase your public visibility, which may lead you to other kinds of clients, some of whom you will still need.

Many architects realize that public policy directly affects the quality of the built environment as well as US ecology and natural resources. They also realize that government legislation directly affects the practice of architecture and design of buildings. Thus, desiring to be heard and to influence public policy, a number of architects—reportedly more than 1,200 at this writing—have been appointed or elected to public office, becoming municipal, county,

state, or federal officials. Perhaps as architects increasingly understand and appreciate the consequences of public decision making, more of them will seek public office as a way to effect positive change for the community as a whole and for the good of architects and architecture.

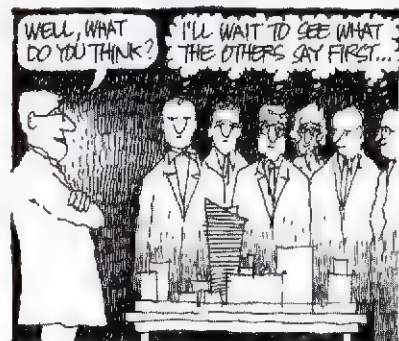
The Homeowner



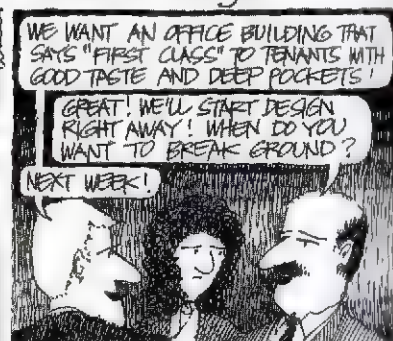
The Government Agency



Clients & Architects: Views on Design



The Corporate Institution



The Developer

12 We Who Are Architects

Arriving at this final chapter, you should have a better understanding of the profession of architecture than you did eleven chapters ago. Of course, no book can convey fully the architectural profession's unique value and exceptional achievements, its nuances and peculiarities, its continually shifting values and methods, its daunting challenges and shortcomings. Nor can a book fully portray the remarkable diversity of individuals who call themselves architects. Nevertheless a few additional pages may help round out the book's portrait of architects and the subculture they create and inhabit.

The introduction refers to several popular versions of architects as heroes. These highly romanticized images are misleading and oversimplified. In reality, most architects are decidedly unheroic, although some have idiosyncratic personalities and aspire to be aesthetically heroic. Consider some of their mannerisms and attitudes, their social and behavioral characteristics. As you read, try to envision a particular architect or even the architect you yourself may become.

Architects as Types

Some people seem destined to be architects, possessing natural talents as designers. Others are born into circumstances that facilitate achieving personal and professional goals. Notwithstanding their intellectual and artistic talents, the latter are blessed at birth with social status, useful personal contacts, and perhaps inherited wealth. They have a head start giving them access to a world of potential clients not readily available to others. Comfortable and confident, armed perhaps with innate charm and sophistication, they can choose to practice architecture as

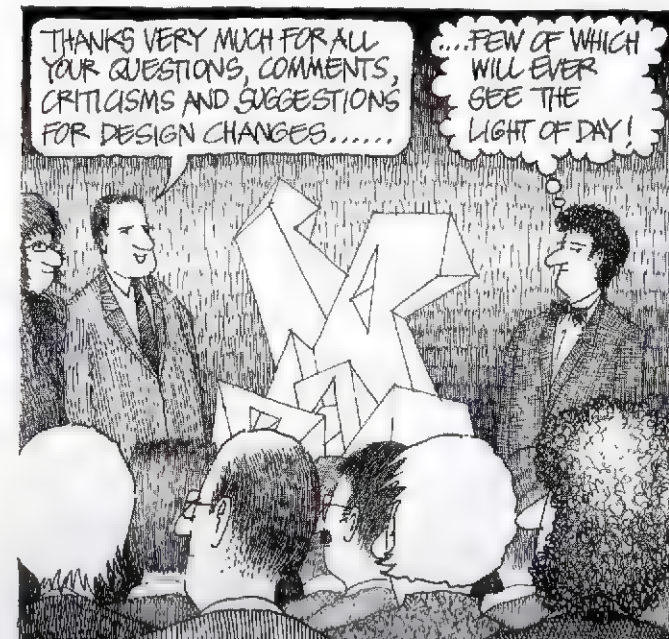
an artistic and cultural pursuit rather than as a business. If the elite influence much of what is built, and someone has grown up among the elite, unfettered by subsistence finances, then being an elite architect can be a sure ticket to success.



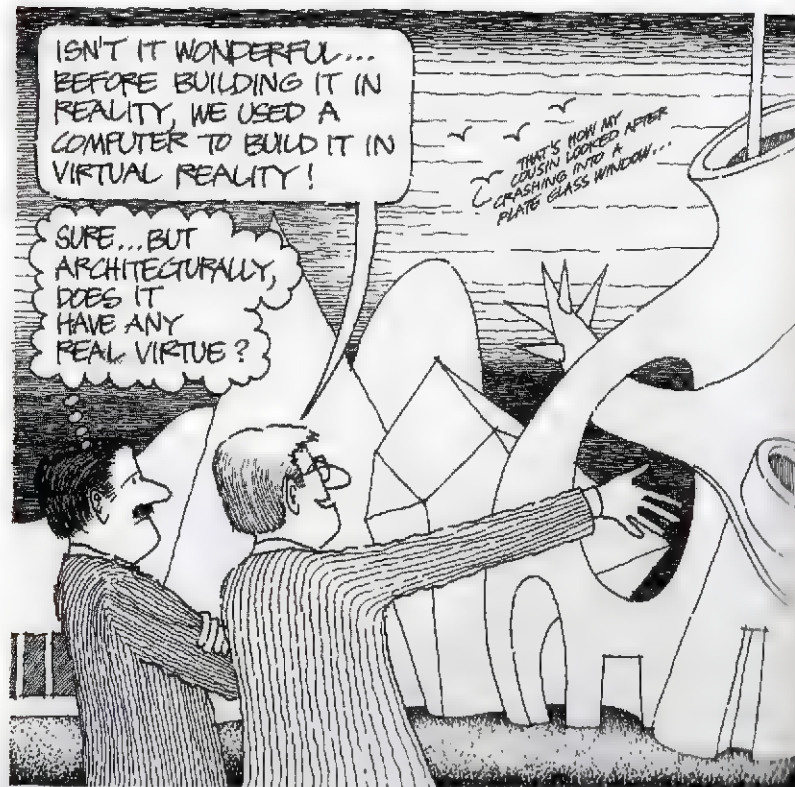
Another type, the architectural artiste, is defined by manner, not social background or inherent talent and intellect. Through words and gestures, artistes typically express themselves sometimes

flamboyantly and often unconventionally. They can be witty, deadly serious, or dramatic, but they are rarely shy and often self-absorbed. They are demonstrative and relish an audience. Much of what artistes do is consciously chosen or fashioned to express their artistic tastes and to put on a show: what they wear, how they live, the authors they read and quote, the diversions they seek.

Common to all professions but sometimes extreme in architecture are the prima donna types. They can be oblivious to and even disdainful toward other people, ideas, and activities unconnected to their own interests, needs, and activities. They often seem arrogant, pompous, vain, and temperamental. Prima donnas also may act the artiste, affecting defiant nonconformity. Some prima donnas, having made their mark, can legitimately claim the limelight. Others are less deserving, their self-estimation, not the estimation of others, placing them on a pedestal. Humility eludes most prima donna architects, who will not hesitate to tell you how accomplished they are.



Architecture always has creative fantasizers who dream up and propose unrealizable projects. The fantasizer is not deterred by matters of practicality, convention, or acceptability. A speculator and risk taker in the realm of ideas, the fantasizer may also take pleasure in being outrageous and iconoclastic, using fantasy as a form of cultural or political criticism and commentary. Stretching the boundaries of style, scale, or technology, design fantasies can be simultaneously satirical, vexatious, symbolic, and enlightening. Often fantasizers concoct fantasy for its own sake, to be whimsical and amusing. Only when pretending to be real or denying reality do their efforts deserve skepticism or dismissal because confusing fantasy with reality can be dangerous.



By contrast, many architects are pragmatic, down-to-earth types. They are practical, get-the-job-done people who prefer reality to fantasy. They may seem anti-intellectual but in fact they may embrace intellectual concepts that also make sense and prove useful. They enjoy building for its own sake and thrive on the nitty-gritty process of design and construction, happily worrying about functionality, costs, and deadlines. Down-to-earth architects, eschewing aesthetic speculation and verbal theorizing, are less concerned about the meaning of beauty than in finding the means to achieve beauty.

Practical architects also may have strong management and organizational skills, reflecting their interest in project implementation. We speak of architects who know how to put buildings together, who are knowledgeable about detailed design, construction materials, technological systems, and construction procedures. But preoccupation with practicality can impede innovative design thinking because frequently the most practical approach is to continue doing what was done before. Thus there is a strong argument for design teams to be composed of those who dream up ideas and those who can execute them.

Architects of any type can be compulsive, even obsessive, about their work. Being somewhat compulsive as an architect is not necessarily bad. Hundreds of tasks in architectural practice require intense, careful, thorough execution. God and the devil are in the details. Thus, being compulsive about pursuing and completing a task 100 percent is an asset in an architectural office where exhaustive, nit-picking, time-intensive work must be diligently and meticulously carried out. Public safety depends on such diligence. Wouldn't you feel more comfortable in a building whose design was scrutinized by a compulsive architect than by an easily distracted, hang-loose architect?

Being obsessive-compulsive is a liability when it becomes extreme and irrational. It leads to intellectual and emotional blindness, eclipsing potentially desirable options and creative possibilities. Excessively compulsive architects alienate colleagues and clients by stubbornly rejecting intelligent, artful compromises. Clinging unrelentingly to beloved geometric forms, styles, materials, or colors, no matter how inappropriate, architects sometimes produce poor architecture driven only by personal obsession with their own bad ideas. Of course, do not confuse irrational obsession with reasoned tenacity and passion. A fine line distinguishes vigorous advocacy from compulsive defensiveness but it is an important distinction.

Architectural offices are full of plodders. Plodders, similar to down-to-earth and reasonably compulsive architects, are necessary in architectural practice. They willingly undertake work that requires steady, laborious, and often tedious effort. They keep on going, plugging away until the job is done. They cope well with drudgery, of which there is a considerable amount at times in architecture. The plodder is persistent but not necessarily obsessive. Faced with an obstacle or change of direction, he or she may adapt readily to changed circumstances. Most plodders generally respect authority and gladly accept instruction or guidance.

The business of architecture naturally engenders business types. Many architects choose to become or evolve into managers and entrepreneurs. Managers like to be in charge, directing people and overseeing operations. They enjoy responsibility and authority. To be effective, they need leadership ability and the ability to make tough decisions in situations of conflict and

pressure. Their instincts draw them to organizations and to organizational politics.

In architectural practice, projects and firms require management. In this respect, architecture is like any other business. Firm accounts, finances, personnel, business development, equipment, and physical facilities have to be administered, along with specific, day-to-day project operations. Without strong management, organizational chaos and financial failure are likely. Thus professional managers are among the most critical and highly paid workers, even in architectural practice.

But managers can be a problem as well. Tinkering unnecessarily with administrative structures or meddling inappropriately in firm operations, managers can stifle those working under them. The passive, laissez-faire manager can be just as obstructive by failing to provide adequate leadership and direction. He or she risks letting things slip out of control or slip through altogether. Although the casual manager may superficially maintain amiable relations with underlings, lack of attention and guidance may result in frustrated and demoralized personnel and even mission failure. Good managers may not always be loved but they will be respected, listened to, and usually rewarded, no matter how obnoxiously or pleasantly they may behave from time to time.

Not all managers are entrepreneurs. Entrepreneurs are, above all, risk takers willing to accept the possibility of loss as well as gain. Consciously or subconsciously, they thrive on risk. Entrepreneurs like to create, own, and control businesses or projects. Conscious of the marketplace, they are always alert to new opportunities. Anyone who enjoys generating new ideas and then mustering resources to implement them is an entrepreneur. Entrepreneurs also have to do a lot of networking, which requires many of the social and verbal skills discussed in previous chapters.

The best networkers are extroverts who join and participate in professional, civic, and social organizations, mixing with colleagues and prospective clients. Meeting people, exchanging ideas, gathering information and project leads, and making themselves or their firms more visible and widely known is how architects engage in public relations.

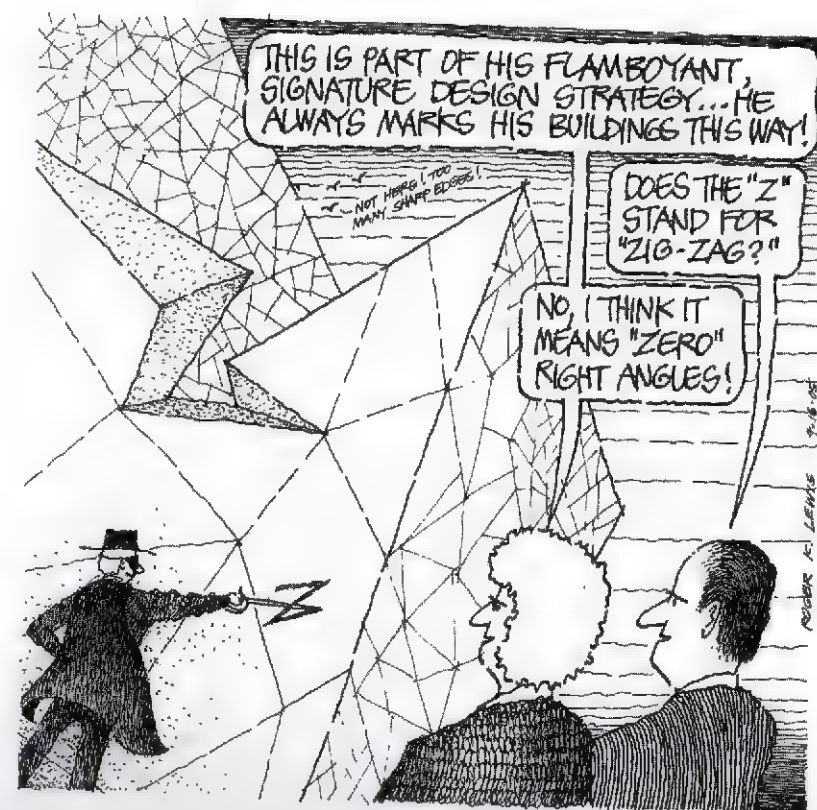
Many architects aspire to be Renaissance persons. The Renaissance in Western Europe, stretching from the fifteenth to the seventeenth centuries, was an age of world exploration, scientific discovery, and secular enlightenment, the age when humanism trumped mysticism and blind deism. It produced some of Western civilization's most creative inventors, artists, architects, philosophers, craftsmen, scientists, engineers, and builders, among them Leonardo da Vinci, Michelangelo, Andrea Palladio, and Isaac Newton. Thus to characterize someone as a Renaissance person, or as a polymath, is recognition of that person's diverse knowledge, talents, skills, and the ability to be a generalist and a specialist.

Such aspirations still make sense for architects. To be an architect requires expertise in a variety of disciplines, coupled with the ability to respond effectively to an environment of increasing complexity, uncertainty, and change. Architects must be able to communicate and work intelligently with carpenters, masons, bankers, or attorneys. Architects must be artists, poets, engineers, sociologists, business administrators, and diplomats. Trying to be a Renaissance person is challenging but many architects come close to it. And although the prolific Renaissance architect of today may not produce cutting-edge or timeless architecture, he or she may very well be the type who has the best crack at it.

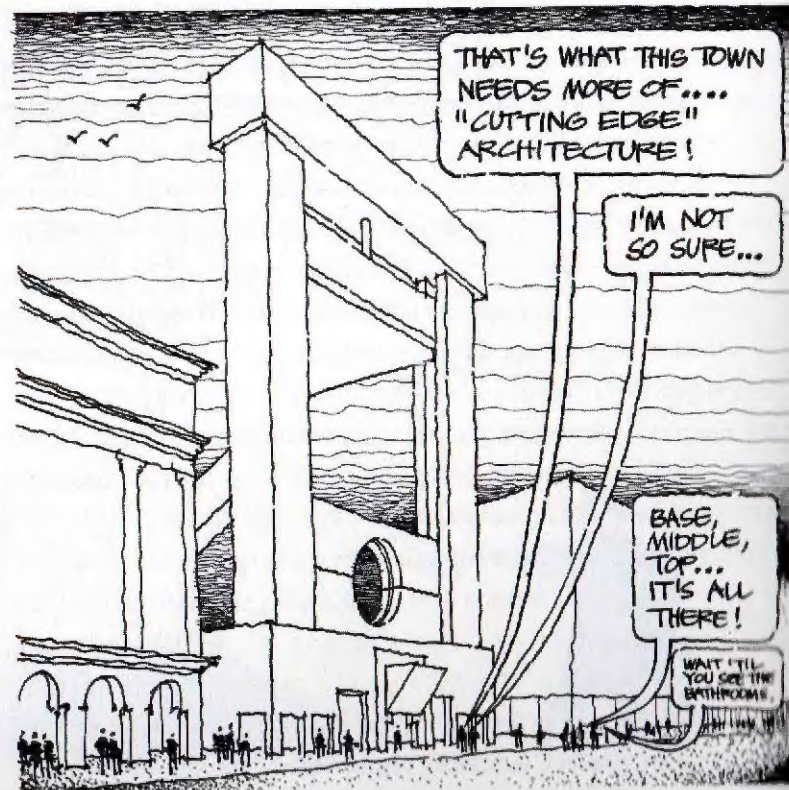
Idols and Adulation

Every period, movement, and passing trend in architecture has its architectural heroes and heroines, individuals widely recognized

and celebrated within the profession. A few become celebrated public figures. They may be admired not only for their design work but also for their theories and teachings, their critical insights, or their artistic and literary skills. The culture of architecture seems unable to exist without a pantheon-du-jour, a collection of prophets and apostles blessed for the moment by their peers, historians and critics, teachers and students, and especially journalists. Membership in the pantheon changes regularly but there is always a pantheon. And only a few members, such as Frank Lloyd Wright or Le Corbusier, are likely to remain permanent members.



Architectural prophets and apostles stand for more than the Vitruvian ideal of "commodity, firmness, and delight." Rarely does anyone worship architects who are merely competent or even good at what they do. Instead people mostly idolize designers perceived to be exceptional, to be avant-garde. Typically their work is viewed as innovative, iconoclastic, visually and intellectually provocative, perhaps exhibiting in some way the poetic, transcendental potential of architecture. Sometimes practitioner heroes explain and justify the poetic, transcendental nature of their work by writing or telling us about it. Such explanatory discourse can be at best intellectually fascinating and enlightening or, at worst, obscure and unconvincing.



Architecture can be rich in messages. Too often, though, we hear pronouncements of meaning and symbolism that only the heroic architect, acting as messenger along with a select group of sympathetic critics and disciples, can see or interpret. Such interpretations may elude the rest of us no matter how hard we try to make sense of them. Consequently be wary of what you hear and read about idolized heroes. Maintain an open but critical mind. Architecture is full of overworked, tiresome design clichés that are the residue of some heroic designer's once-original ideas. And many unusual, idiosyncratic design ideas, touted by journalists in search of the hottest story, may, in fact, prove to be bad ideas.

The Faces of an Evolving Profession

In my architecture class at MIT in the 1960s, there was only one female; the rest of us were US-born, white males, mostly young and single. Since then demographics have changed dramatically. As many women study architecture as men and I have taught design studios in which women were the majority. Today many US architecture students are of African, Asian, and Hispanic descent. At undergraduate and graduate levels, US architecture schools always are populated by foreign students from Asia, Europe, and Latin America.

Architecture students are not only ethnically and nationally diverse, they also are more diverse in age and socioeconomic background. Increasing numbers study at the graduate level, have degrees and experience in other fields, and are heads of households. No longer is it unusual to see middle-aged men or women studying alongside twenty-year-olds in architecture school.

But some things still have not changed as much or as rapidly as one might hope or expect. White males still dominate the profession. The majority of architectural firm owners and

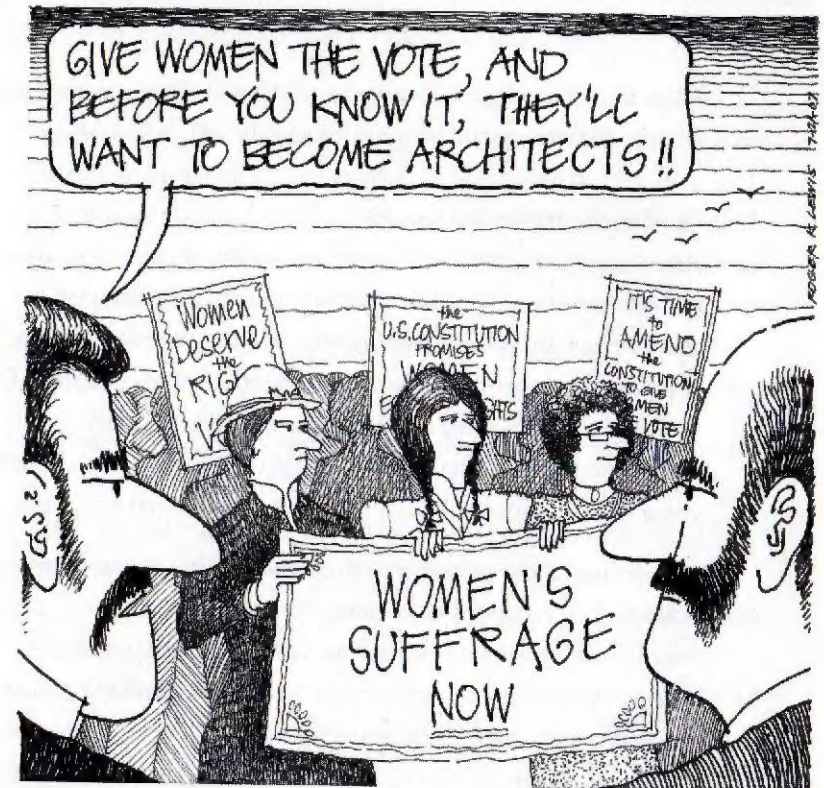
professors in architecture schools are males. African Americans are relatively sparse in the architecture profession and on architecture faculties, as well as in architecture school student bodies, despite decades of affirmative action on the part of universities.

Women with families face pressures that men do not. During child-bearing and child-rearing years, devoting full attention and energies to time-demanding professional activities is especially difficult for architects who also are mothers. For some women working in firms, this can result in losing ground to male counterparts in terms of seniority, experience, and compensation. Until the 1980s, female architects were still considerably younger statistically than male architects and therefore less likely to have attained leadership positions in practice or education. Often relegated to doing interior design work, women rarely were in charge of construction administration or seen on job sites wearing a hard hat and issuing instructions to contractors. However, women today are increasingly taking their rightful place in all areas of the profession.

Historically, African Americans in high school and college have tended to choose careers other than architecture, perhaps continuing to perceive architecture as a white male profession. Within African American families and communities, architecture is still seen as an esoteric profession, one rarely considered by students who nevertheless might have the requisite talents and motivation. Even predominantly black colleges have to work hard persuading students to pursue architecture. Statistically there are still relatively few African American architect mentors or role models. Yet in the United States, black architects have a long and successful history in private practice and government, and African American graduate architects find jobs as readily as anyone else.

The ethnicity, sex, and national origin of an architect are irrelevant. Individual ability, knowledge, dedication, and

personality are what matter in architecture. Therefore, no matter who you are, where you come from, or what you look like, if you want to be an architect and have the talent, nothing today stands in your way.



Afterword

Here are a few, brief reminders and parting observations, plus my sincere thanks to you for reading this book.

On Becoming an Architect

- After high school spend at least two years, if not more, pursuing college-level general education before concentrating on architecture in a professional program. Play the field of electives, explore diverse interests, engage in sports, travel a bit, and find yourself prior to three or four years of total architectural immersion. It is difficult to get all this in when you go directly from high school into an intense five-year BArch program.
- In selecting an architecture school, be skeptical of architecture school rankings published annually, in particular the *U.S. News and World Report* college and university survey (typically appearing in March). It purports to identify top architecture schools by sending questionnaires only to deans and one or two senior faculty members of schools granting master's degrees, asking them to rank architecture schools. The response rate is about 50 to 60 percent. The ranking methodology is superficial and seriously flawed. It ignores the views of most architecture faculty members as well as practicing architects and school alumni; it overlooks BArch programs; it assumes current deans and senior faculty members are the most knowledgeable about other schools' curriculum, courses, scholarship, and faculty, a dubious assumption; and, with its focus on reputation, it inevitably pushes

image over substance. It should be no surprise that alma maters of deans and senior faculty members repeatedly dominate the list.

- If you are studying architecture but doing poorly or feeling unhappy about it, consider alternatives: taking a year off to work, enrolling in fewer courses, or even changing majors. Architecture is not easy but it should be stimulating, satisfying, and even fun.
- You may want to look for schools offering optional academic tracks for students after completion of introductory architectural studies. These tracks would be alternatives to the traditional track emphasizing and centered on design. Such programs serve well the many architectural students who discover that architectural design is not their strength but who have strengths in other areas: history, urban planning, real estate development, technology, landscape architecture, interior and furniture design, business, and management.
- Architecture schools should aspire to educate fewer but better architectural designers. At the same time they should seek more institutional support for expanding nondesign, nonprofessional components of their programs, offering more courses for undergraduates and others not seeking accredited professional architectural degrees but who are interested in the subject. Nevertheless, the accredited professional program should not be compromised for the sake of nonprofessional, general education.

On Being an Architect

- If and when you marry, consider its impact on your career and your career's impact on your marriage. Marrying and having children at too young an age can be stressful for architects who work long hours for moderate compensation. And there is a lot to be said for marrying someone who is *not* an architect, ideally someone capable of earning a living independently. Even better, marry someone whom you love but who also has money.

- Take your time. There is no rush. You do not have to do it all before you are thirty or even forty. You have much to learn, and architects are students all their lives, capable of learning new things and starting in new directions at any age.
- Know that today's fads and fashions will be stale tomorrow and gone by next week. What seems important now may be inconsequential or forgotten in the future. Architects must embrace more lasting values, just as their buildings must endure for decades or centuries. Even architectural journalists, critics, and teachers are not immune to judging architecture too much by tastes and trends of the moment.
- Resist the temptation to be all things to all people. Practicing architects do best when they are doing architecture. They are different from engineers, contractors, sociologists, financial analysts, or developers. Therefore, as an architectural practitioner,



concentrate on improving the circumstances that relate directly to architecture, avoiding periodic forays into other territory just for the sake of economic expedience. Creating good architecture and good cities is a great enough challenge.

- Recall what makes architecture such an appealing profession: the many rewards of designing built form and creating useful, visually rich environments; the fusion of art, technology, and social sciences; the opportunity to exercise community leadership; and the gratitude and recognition bestowed by respectful clients, colleagues, and the public. The impediments, frustrations, financial limitations, and risks with which architects must cope make it an undeniably challenging career. Yet for those with talent, passion, and some amount of good luck, no career compares with architecture.

